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THE GRAPHIC ARTS

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THE GRAPHIC ARTS

MODERN MEN AND MODERN METHODS

BY

JOSEPH PENNELL

N.A.

AUTHOR OF THE GRAPHIC ARTS
SERIES, MODERN ILLUSTRATION
THE ILLUSTRATION OF BOOKS

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P4

THE SCAMMON LECTURES FOR 1920 PUBLISHED FOR THE ART INSTITUTE OF CHICAGO BY THE UNIVERSITY OF CHICAGO PRESS CHICAGO ILLINOIS

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NOTE.—THE LECTURES PRESENTED IN THIS VOLUME COMPRISE THE SIXTEENTH SERIES DELIVERED AT THE ART INSTITUTE OF CHICAGO ON THE SCAMMON FOUNDATION. THE SCAMMON LECTURESHIP IS ESTABLISHED ON AN AMPLE BASIS BY BEQUEST OF MRS. MARIA SHELDON SCAMMON, WHO DIED IN 1901. THE WILL PRESCRIBES THAT THE LECTURES SHALL BE UPON THE HISTORY, THEORY, AND PRACTICE OF THE FINE ARTS (MEANING THEREBY THE GRAPHIC AND PLASTIC ARTS) BY PERSONS OF DISTINCTION OR AUTHORITY ON THE SUBJECT ON WHICH THEY LECTURE, SUCH LECTURES TO BE PRIMARILY FOR THE BENEFIT OF THE STUDENTS OF THE ART INSTITUTE, AND SECONDARILY FOR MEMBERS AND OTHER PERSONS. THE LECTURES ARE KNOWN AS "THE SCAMMON LECTURES."

PREFACE

THIS volume is a report in shorthand of the Scammon Lectures as I gave them at the Chicago Art Institute, April, 1920. If, therefore, the book seems to be talked instead of written, it is what I want, what I said, what I have learned, what I believe. It was inevitable, however, by this method, that there should be repetitions, and references to subjects and slides shown at the lectures which do not appear in the pages. I have referred to this in the Introduction, and also said that I wished to make the book in this fashion. I have done so. It is myself. And though talked in six hours, it has taken sixty years to get together. I hope students may be induced to believe as I do—for I know if they do, they will not be led astray, as they often are, by blatant bellowings, by mechanical makeshifts, by the false prophets shrieking that anyone can be an artist, especially if he attend a correspondence college or a get-rich-quick school run by these prophets or their friends; and people who tell you that art can exist without craft—handicraft—and the most skilled craft, are false prophets.

I hope that the book may lead students back to the straight, hard, and narrow path from which in these last years they have so sadly strayed. I hope that it may prove to them that the Graphic Arts are as serious as any of the other arts. I hope that it may show them or point out to them the masterpieces of the Graphic Arts, and that without work, belief, and knowledge we can do nothing, despite the difficulty-dodgers of this artless, aimless, shiftless age, who are the curse of the age, the hope of the lazy and the unfit, who look to art for an easy living, not as a most difficult profession.

I have spoken of the crying need for a national department of art, a national school of art, national encouragement of art. The politicians are too ignorant to encourage art now, but they will when they are made to see it will pay.

It is the highbrows, the intellectuals, the amateurs, and the uplifters who have grabbed art in our country. They are afraid of national art, national art education, for even they know that if art became a national factor they would lose their jobs—and rightly—of teaching and preaching what they cannot practice.

There are art schools that are taking up practical art and craft education, and there are artists who are teaching practically their trades, but many are doing harm to students, telling them how to make big money quick, and that is the aim of the people of this country—ignorant that art is the most difficult and most underpaid profession in the world. It is, however, for money that the immigrant comes, and the American still exists here. They know no better, but art is dying of thirst in a dry desert. And we have no graphic art and craft school properly equipped in the country.

JOSEPH PENNELL

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THE GRAPHIC ARTS MODERN MEN AND MODERN METHODS INTRODUCTION

I LEARN that these lectures are primarily intended for students, according to the terms of the Scammon Bequest, and it is to students, therefore, that I wish primarily to address myself. In previous years several authorities have discussed certain aspects and forms of the Graphic Arts. But these addresses have been mostly devoted to the history of the Arts, to the work of the past—"made out of books," as one lecturer has said, rather than out of experience and practice of men of the present. I believe that we should study the work of our predecessors, for unless we know what has been done, and the methods by which it has been done in the past, we cannot know whether we are carrying on

the great traditions on which all great art is founded; we cannot know whether we are advancing, whether we are re-echoing the past, whether we are standing still, or whether we are degenerating.

There was one notable exception among these lecturers, who have taken the Graphic Arts as their subject—the late F. Hopkinson Smith, on *Outdoor Sketching*. Mr. Smith was an able, practical exponent of this form of art. Mr. Smith, however, treated only one phase of a great subject. Mr. Carrington treated another in *Engravers and Etchers*. Mr. Smith's lectures were the result of a life passed in practicing what he preached; Mr. Carrington's were made from the books and prints he has studied. Both were valuable documents. I wish, however, to try to combine them, though I shall confine myself to modern Graphic Art, to modern men and modern methods, especially to the men who have carried on the traditions of the past and applied them to the methods of the present. For it is impossible in this world—or what was the world—to create anything new, to be original. We can only carry on. But in every art and craft the men who have carried on are called inventors, creators, original, when they are only intelligent students of the past who have advanced their art one step in their own age by adapting the work of the past to their own needs. I wish also to include in the Graphic Arts only Drawing, Engraving, and Printing, not all forms of art, save Sculpture and Architecture, as Hamerton did in his great book on *The Graphic Arts*.

Nor am I going into the history of the Graphic Arts to any extent; but there are great landmarks in the past that I must refer to. There is the wood

cutting of the Japanese from which we have learned so much and must learn much more, or the Chinese from whom the Japanese learned everything. There are the old German and Italian draughtsmen, engravers, and printers, some of whom are still our masters and our inspiration; some of whom we have not surpassed, nor even approached. Still, unless we have a knowledge of those masters of the past and their methods, we can make no progress in the present. And it is these modern methods and the men who intelligently use them today that I wish to discuss. It is impossible for me to refer to every eminent illustrator in these lectures—and still more impossible to include the work of all to whom I have referred.

I wish to thank the Trustees of the Art Institute for the honor they have done me by inviting me to deliver the Scammon Lectures. To thank the Director, Mr. Eggers, and other officials of the Institute and especially Miss McGovern, who have so greatly aided me in preparing the illustrations for the lectures, reproduced in this volume. In fact, on this and other occasions, I have only to thank everyone connected with the Institute with whom I have come in contact. And finally I only hope the lectures may be of some benefit to the students.

CHICAGO, APRIL 22, 1920 JOSEPH PENNELL

AUTHOR'S NOTE: A number of prints and drawings are referred to in the text which were shown as lantern slides but are not published in the volume. Many of these are in the Ryerson Library and the Print Room of the Art Institute of Chicago.

PAGE 16 THE EARLY PRINTER AT WORK AT HIS PRESS. CONTEMPORARY WOOD CUT

THE GRAPHIC ARTS ILLUSTRATION
WOOD CUTTING AND WOOD ENGRAVING
FIRST LECTURE TUESDAY APRIL 6 1920

IT is stated that one of the functions of the Scammon Lectures is that they are primarily intended for students, and if I can address myself to you as students this afternoon—for we are all students, and we must be to the end of the

chapter—I shall have succeeded in doing something—something worth doing.

One of the previous lecturers in this series said on one occasion that it was his duty never to be original, but to get everything he had to say out of books. I do not believe in being original. There is no such thing as originality in this world. The only thing we can do is to carry on tradition. But when it comes to taking facts that I have to put before you out of books, it is rather difficult, because there are few books on the graphic arts, although all the work which I shall refer to is printed, and the greater part of it has appeared in books. But about those books, or rather the illustrations in them, very little comparatively has been written; written, that is, by the men who made them. Nor did most of the draughtsmen and engravers describe their methods of work.

There are today endless ways of reproducing and printing illustrations. Artists seem to think that anything can be reproduced and printed without any training, without any technical knowledge, without any thought of the chemical, photographic, or engraving and printing problems which are involved, but in every print, in every book, when the results are not good, the artist is blamed. And this is not surprising, because the artists of America mostly know nothing about the crafts; yet the engravers know little, and the printers do not care, most of them. This condition of affairs has been brought about because of the lack of proper technical art schools in this country and a want of interest in technique on the part of artists, and it is the want of technical schools which we must fill. Until this Institute can do something besides teach the fine arts, so called, it

really will have done very little to advance the graphic arts. There is coming in this world a great war in art, a war as great as the commercial war now upon us. We are going to have to fight in the immediate future not only our enemies but our allies, and they are trained craftsmen, and unless we are prepared to take up nationally the teaching of the graphic arts and the applied arts and the industrial arts, our enemies and our friends are going to do our art work for us, and this country artistically will be wiped off the face of the earth. If we want a National Art we must have a National Art School, a National Department of Art, and a National Secretary of Art, or stop cackling of Art.

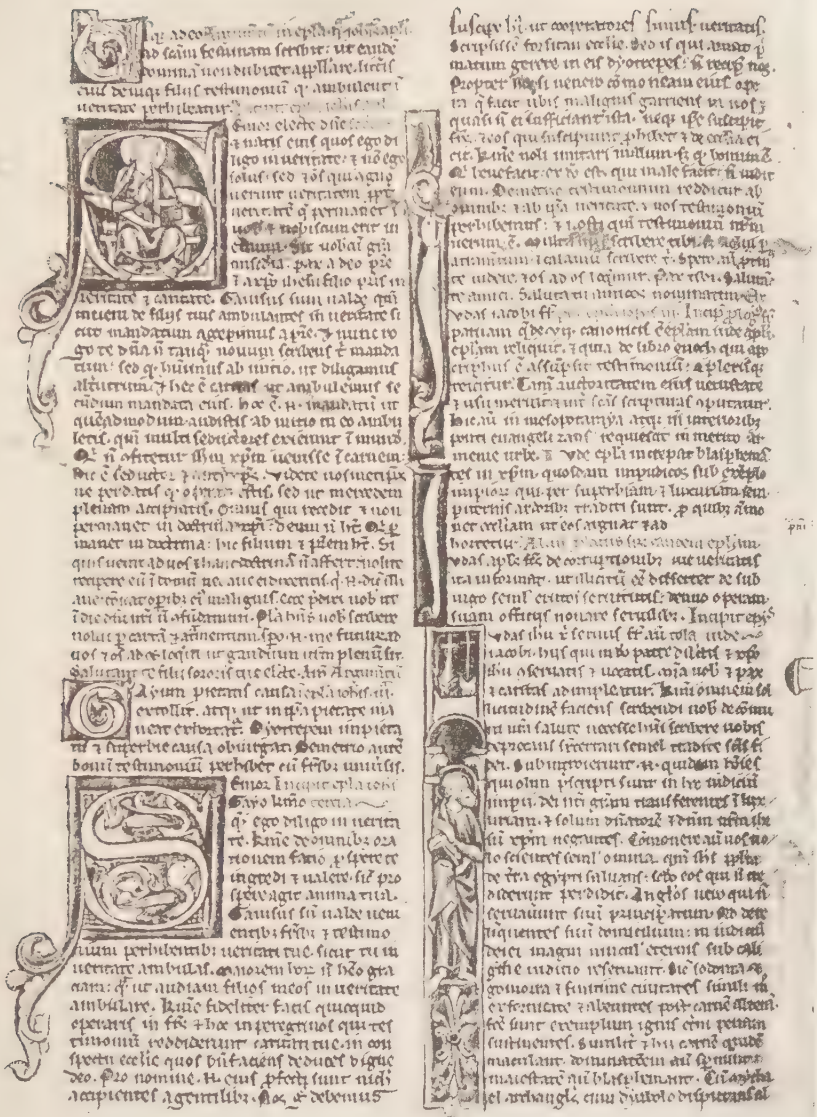
I propose to show what has been done in the past by Americans and what has been done by foreigners as well, not only by Americans, for though I am proud to be an American, but scarcely proud of my country or of most of the inhabitants of it today, I do not believe that in art we are bounded by the limits of the United States, by ignorance of other men and other methods, or by any other limits. We must know what has been done in the past and in other lands in order to know how to do better work in the present, and in order to do that work we must be properly trained and prepared. But today conceited amateur ignorance covers this part of the globe. A belief that we are the elect has blinded us.

You may say, and several people have said, that the graphic arts are a very broad and a very wide subject. Some writers have grouped among the graphic arts all arts except sculpture and architecture. I am not so desirous of extending the borders; in fact, I have not time, and you would

not have time to listen to me if I made such a mistake as to do so. All I want to talk to you about is what I think, what I know, are rightly considered to be the graphic arts. These are the arts of drawing, engraving, and printing, in their various forms, and these forms are very numerous, and if you students are going to practice them you cannot practice them out of your heads without technical knowledge. You cannot use your imagination instead of technical training. You must have skilled technical training in order to do your work, and today in this country you cannot get it. You must become workmen. You may have genius, you may have ability, but it will do you no good, unless you are practically trained craftsmen, and that you must be before you can do anything of any value in the arts and crafts. If you have learned only to draw and paint you cannot express yourselves in the graphic arts at all. You may get the results that you see in the newspapers and magazines—and those newspapers and most of the magazines and nearly all the books are a disgrace to civilization, because of their technical imperfections in illustration, engraving, and printing.

I am not going into the history of the graphic arts. I mean I am not going back to the very beginning of things because I have not the time, and I should bore you with inartistic facts and artless figures. I only want to show you what I consider, what I know, to be great art and good art, but talking and showing and listening will not make artists out of you; only hard work will do that.

The graphic arts have been practiced from the very beginning of time. The Egyptians and the



PAGE 11 PAGE FROM MANUSCRIPT BIBLE, THIRTEENTH CENTURY. ENGLISH. COLLECTION OF THE ART INSTITUTE OF CHICAGO

PAGE 12 ST. CHRISTOPHER. FIRST WOOD BLOCK, PRINTED IN GERMANY, 1423. ARTIST AND WOOD CUTTER UNKNOWN

Assyrians were designing posters when they carved their reliefs. But these were so explanatory that all could see and understand without legends and slogans and so durable that they have lasted till today. Wall paintings and sculptured shrines were books for those who could not read, and no one scarce could read. We who can read, thousands of years after, marvel at them.

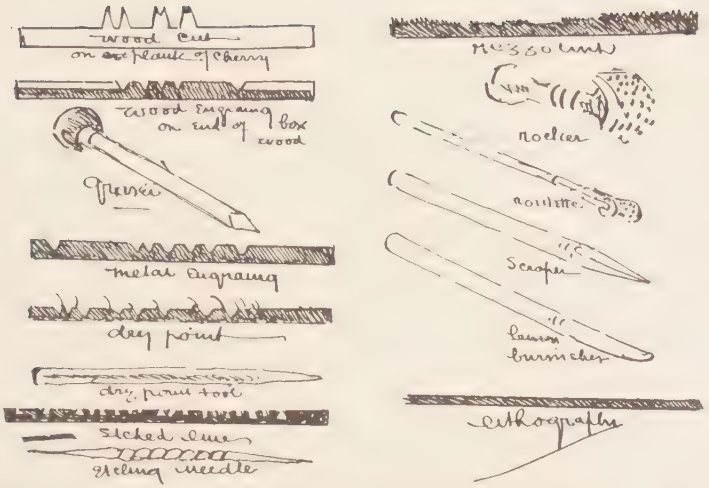
The first persons who practiced what we know as the graphic arts were the scribes and illuminators, and here is an early print (Page 1) showing one of those scribes at work. He is working in a library, writing and illuminating a manuscript.

Here is a page from an illuminated manuscript (Page 9), and there is one thing about it I want to point out to you. William Morris and Walter Crane and others who have written of the graphic arts have divided designs into two classes—decorative design and realistic design. Now, as a matter of fact, what we today call decorative design, except the borders of this missal, was pure realism. Decoration, what we call decoration, was realism in the past when it was done. This is proved by the work of the past, which the artists treated as realistically as they could. This I maintain despite William Morris and Walter Crane.

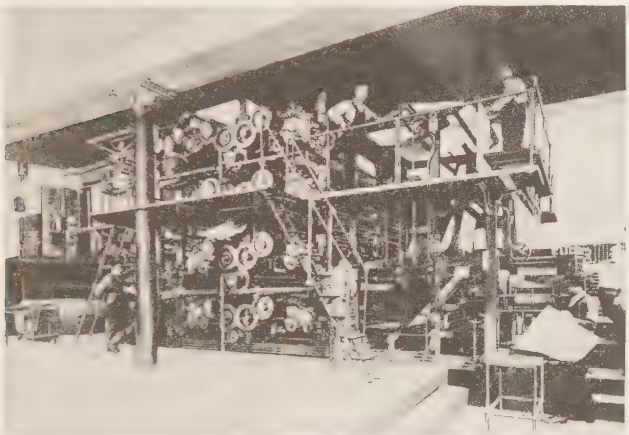
These illuminators and scribes wanted to multiply their designs, and in order to do so someone—nobody knows who—at any rate I do not—conceived the idea of taking a piece of cherry or pear wood and drawing on the side of it and cutting all the undrawn-on parts of the wood away, leaving the design raised above the cut-away portions, and this was wood cutting. And when ink was rubbed

on the raised parts of the block, and paper placed on it, and pressed on the ink, and the back of the paper rubbed, an impression, a print, came off. This block of St. Christopher (Page 10) is one of the first, if not the first, of the wood-cut blocks. It was done, as you see, in 1423. But it all was one single, solid piece of wood, drawing and text, cut with a knife, and in order to print from it, the standing lines were inked, and when a piece of paper was pressed on these standing lines the portions which were cut out did not receive ink, and when the paper was rubbed on the back the design came off on it, and that was printing. I have repeated this, but half of you won't remember. However, it was one solid design, just as the work of the Japanese wood cutters is today. But the scribes and wood cutters were not satisfied with that. They next made books of illustrations and text called block books, a block to a page, and bound them.

But before I go on to the next step I want to explain, as clearly as I can, the various forms of printing surfaces (Page 13). Here is a wood block. The block originally was as high as the tops of these points and was cut away with knife and chisel, leaving these points and ridges, which represent lines and dots drawn on the block, standing in relief. The next form of engraving was on metal. In that, instead of leaving the lines in relief, the engraver dug holes and pits and dots into the metal plate, leaving the intervening spaces standing instead of cutting them away, as in the wood block. The ink was then rolled or dabbed on to the surface of the metal, then cleaned off it, the rest of the ink remaining in the holes and pits, and when a piece of paper was put on the face of the plate,



PAGE 12 WOOD AND METAL PLATES AND TOOLS USED IN ENGRAVING. DRAWN BY JOSEPH PENNELL



PAGE 19 MODERN MULTIPLE HOE PRINTING PRESS

THE RYERSON LIBRARY. THE ART INSTITUTE OF CHICAGO

rubbed or pressed with great force, the ink came out of the holes and adhered to the paper. That is metal engraving.

Another form of metal engraving was when the engraver made furrows in the metal, leaving the upturned metal standing. These upturned ridges held ink, which gave added richness and produced what we called dry point. Another method was to cut off the raised metal, called burr, and leave the clean sharp lines. These were made with a graver, and such plates were metal engravings. Or the lines were obtained by covering the plate with acid-resisting varnish, drawing through that, and biting the exposed lines into the plate with acid, the same way as the engraver cut into the plates with his graver, and the lines bitten in were filled with ink, the surface cleaned off, paper placed on it, and under pressure the ink came out of the lines. This is etching.

Different tools are employed. On the wood block the cutting knife is pulled toward you. The metal engraver held the graver in his hand and pushed it from him, drawing his lines with it. The dry point was made with a heavy steel point, with which the line was dug, while the etching needle is a sharp-pointed instrument, the lines being drawn through the surface of the varnished plate.

The third and last method is lithography. That is surface printing, in which there is no relief or depression, but the work is done by chemical affinity. The design is made on a plate or stone with greasy ink. The surface of the plate or stone is dampened with water. Then ink is rolled on it, which will adhere to the design only or to those parts which are not dampened, because water repels

the ink, which is grease, from the undrawn spaces and the ink is attracted to the greasy drawing. When a piece of paper is placed on the plate the inked design comes off on the paper. Lithography is the simplest and most abused of all the graphic arts and is the most wonderful. I shall go into a detailed description of these technical methods later, but I want you to understand at the beginning the three ways in which prints are made.

Very soon after the wood block of St. Christopher had been done, someone conceived the idea of cutting up the blocks and cutting each letter separately, and then of making casts of the different letters. These were cut in metal and casts made of each letter.

There is one thing you will have noticed about these cuts of craftsmen, and that is the shops in which they work. I am not a believer in uplift and all that kind of thing; but I am a believer in a person having a decent place to work in. Here is another workman working at his trade, printing. (See headpiece to Lecture 1.) This is the original form of press on which the most beautiful books of the past were printed. This form of press is used today, for in all the graphic arts we have made comparatively little but mechanical improvement, except notably in the application of steam and electricity and the increase of rate of production; in beauty and perfection of workmanship, none at all.

Two of these presses stand in the Plantin Museum in Antwerp, which by the grace of God was not injured in the cursed bombardments of the cursed war, and instead of a union notice, there is over them the figure of the Virgin. You can see the bed on which the type is placed, and when it is

POLIPHILO QVIVI NARRA, CHE GLI PARVE ANCORA DI DORMIRE, ET ALTRONDE IN SOMNO RITROVARSE IN VNA CONVALLE, LAQVALE NEL FINE ERA SERATA DE VNA MIRABILE CLAVSVRA CVM VNA PORTENTOSA PYRAMIDE, DE ADMIRATIONE DIGNA, ET VNO EXCELSO OBELISCO DE SOPRA. LAQVALE CVM DILIGENTIA ET PIACERE SVBTILMENTE LA CONSIDEROE.

LA SPAVENTEVOLE SILVA, ET CONSTIpato Nemore euaſo, & gli primi altri lochi per el dolce ſomno che ſe hauea per le feſſe & proſternate mébre diffuſo relicti, me ritrouai di nouo in uno piu delectabile ſito aſſai piu che el præcedente. El quale non era de monti horridi, & crepidinoſe rupe intorniato, ne falcato di ſtrumoſi iugi. Ma compoſitamente de grate montagniole di non tropo altecia. Siluoſe di giouani querciou, di roburi, fraxini & Carpini, & di frondoſi Eſculi, & Ilice, & di teneri Coryli, & di Alni, & di Tilie, & di Opio, & de infructuoſi Oleaſtri, diſpoſiti ſecondo laſpecto de gli arboriferi Colli. Et giu al piano erano grate ſiluule di altri ſiluatici

PAGE 19 HYPNEROTOMACHIA (POLIPHILI). PHOTOGRAPH FROM THE EDITION OF 1499, IN THE NEWBERRY LIBRARY, CHICAGO

PAGE 23 ALBRECHT DÜRER: AN ANGEL APPEARING TO JOACHIM. WOOD CUT FROM "THE LIFE OF THE VIRGIN"

put there and inked and paper laid on it, the lever is pulled and the impression is made, the tympan or cover is raised and the paper lifted off with the impression on it, and it was in this way that all the early books were printed. All the work was done by hand.

This is an American press, used today for fast printing (Page 13). The cut shows what has been done in the development of presses. The modern power press is an almost human machine that you students, if you wish to be illustrators, engravers, and printers, must learn something about, and you must have one in the school and learn to print on it. It is most fascinating to be allowed to work on one of these machines. But unless you get proper school equipment and machinery you cannot do anything intelligently and practically. We must have properly equipped schools, as they have in Europe. In England and Germany, instead of studying only painting and sculpture, in which arts you will probably never succeed, you students can be taught how to run a machine of that sort, how to print and do something useful. And when a student has learned a craft, like printing, he has learned something which is very practical, something which very few printers in this country understand themselves. Yet printing is one of the most widely used of the arts.

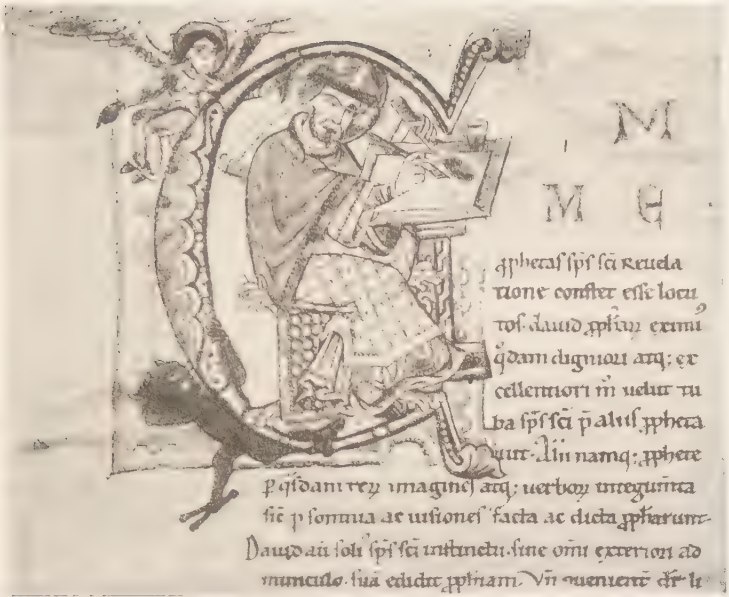
All those early books were printed on the tiny hand presses, and the most beautiful examples of printing in the world were done on them.

This is a page from the *Hypnerotomachia*, printed in 1499 in Venice (Page 17). You have never seen anywhere at any time a more beautiful page. The illustration signed with *b* is by some attributed to

Botticelli. Other authorities say it is the initial of the engraver's name. And all through the book are equally beautiful designs, while the type and the arrangement on the page are as perfect as anything in printing.

There is one thing I want to point out to you—the transition from the old illumination to the new printed page. Note the little initial, a sort of key-note put there, so the illuminator, who at that time had not gone out of business, should add beauty to the decoration of the page by drawing in the initial letter over it; and that scheme was carried on for many years, until the printers learned how to print letters in color, usually in two colors, blue and red. The blocks from which these initial letters were printed are preserved in the Mainz Gutenberg Museum. They are made like a jig-saw puzzle and fitted together after one had been inked in blue and the other in red and set in the form with the type and then all pulled together.

These wonderful books are bound in most gorgeous covers, often of gold and metal, with jewels and wonderful enamels inlaid, and they were placed in the most imposing shrines. There is one of these shrines in the Piccolomini Library, in the Cathedral of Siena (Page 22). Round the walls are missals, while above on the walls are paintings by Pinturecchio. Another beautiful library is at the Escorial near Madrid, and the most interesting feature about that library is that the books, instead of being placed with their backs toward the spectator, are all put in the cases the other way, with the edges all gilded, outward, and the title is written in the corner in black. You cannot imagine a more splendid gallery than that wonderful library in the Escorial. It is a golden



A SCRIBE AT WORK. ILLUMINATION FROM ELEVENTH-CENTURY MANUSCRIPT, CAXTON CLUB, CHICAGO

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PAGE 20 PICCOLOMINI LIBRARY, SIENA

glory. I know of no library to approach it, a solid glitter of gold round the lower part, the great paintings above; and it is that sort of thing that we must work for again, to get the architect, the painter, and the craftsman again working together to make a thing of beauty like this library.

The man who really started book illustration was Albrecht Dürer. There are most wonderful examples of his work in the Apocalypse and the Passion in the Buckingham Collection in the Art Institute Print Room (Page 18). He published his prints and books, among them an alphabet. He not only drew and engraved them and printed them, but sold them, or, rather, he made use of his wife to take them out and sell them in the market-place, and in his *Journeys to the Netherlands and Italy* he gives most amusing and most human accounts of his experiences and adventures.

Another great illustrator was Holbein. He made a series of designs for a Dance of Death, which were copied and imitated all over Europe, for there were thieves and imitators in those days. His metal engravings of decorative objects are very perfect.

Here we have a caricature of the time of Dürer. I regret to say that in this country at the present time we have no trained craftsmen, and so have no trained cartoonists, or much of the work on which we have been brought up would never be printed. I am afraid a caricature of this sort, if such a caricature were published today, would raise a row. There was a row then, and that was intended, and it made a very big row. Now the person caricatured enjoys it; then the caricaturist was a person to be feared.

If these artists wished to draw as they wanted to draw, without thought of the wood cutter and

printer, they had no way of having their drawings reproduced, except by engraving. Here is an example, you might think it was done by someone today, a drawing by Rembrandt (Page 25), about as modern as anything you could find and a splendid example of technique. But there was no way by which Rembrandt could have it reproduced, and he consequently was forced to make etchings, which could not be printed with type and cannot even now. Of these "The Descent from the Cross" is a splendid example.

Claude Lorrain, a few years later, was a great draughtsman. I do not know of any artist today who could make a more up-to-date pen drawing than this (Page 26), which was done by the seventeenth-century Frenchman, who passed so many and such busy years in Rome. He too was forced to etch, and he etched vilely, despite the opinion of critics. For his own pleasure, however, he made endless pen and wash drawings in his *Liber Veritatis*, but these were not reproduced till the last century in mezzotint. The drawing is like a Corot done three hundred years ago, but at that time there was no possible way of reproducing it.

Rubens also illustrated. This design was not engraved by Rubens himself, and there is nothing of Rubens left in it, for the engraver copied it stupidly. These drawings by Rubens were issued and published from the great Plantin printing shop. Printing offices today are filled with typewriters and stenographers and that sort of thing; then they were filled with beauty; and if you go into a proof-readers' room now you usually see through the window the rapidly moving surface car or elevated train. But in that room at Plantin's you can see with what delight a man could work, looking on a

PAGE 24 REMBRANDT: DRAWING IN PEN AND WASH

PAGE 24 CLAUDE LORRAIN: PEN AND WASH DRAWING

MINIATURE FROM EARLY MANUSCRIPT. EDWARD E. AYER COLLECTION, CHICAGO

PAGE 29 WILLIAM BLAKE: THE MORNING STARS SANG TOGETHER. FROM THE "BOOK OF JOB." ETCHED BORDER, ENGRAVED DESIGN IN THE CENTER

PAGE 30 THOMAS BEWICK: THE WOODCOCK. DRAWN AND ENGRAVED ON WOOD BY BEWICK. FROM THE "HISTORY OF BRITISH BIRDS"

PAGE 33 EDWARD CALVERT: THE PLOWMAN. DRAWN AND ENGRAVED ON WOOD BY CALVERT

quiet garden, and it was no doubt for that reason they had time to design, print, and produce the books they did. The Plantin family were booksellers too, and lived in the works surrounding a flowering, arcaded, quiet courtyard, and were not ashamed. No doubt in the evening they and their workmen drank together in the courtyard; now we have stopped that, and mostly stopped good work in consequence. After the Plantins' great days, there was scarcely any good engraving and printing done in Europe and none over here.

The next man of power was William Blake, and Blake, like all his predecessors, was a trained craftsman. Here is one of his books, a most wonderful book, the *Book of Job* (Page 27), which you will find in the library, or, rather, a reproduction of it. In this design and in all his other designs he combined two methods—the design itself was etched or engraved, and below in the text he used another method, really a new one in its way. The legend was written by Blake on the metal plate with some sort of acid-resisting varnish made up like ink, and he bit both parts at the same time and did something which was more or less original. Blake's works are among the greatest of masterpieces. Finally they were colored by his wife, wives then having something more to do than vote and play tennis.

Another artist who appeared about the same time as Blake was Thomas Bewick, also an Englishman, and he had an idea that he could adopt and adapt the methods and tools of metal engraving to wood, that is, instead of using metal plates on which to engrave his designs he could engrave them on wood, using the graver to cut the white lines in the block, engraving the design in white lines on the

cross-section of a piece of boxwood. This engraving of a bird (Page 28) is from one of his numerous books, his *History of British Birds*, and in the engraving you see in a certain primitive kind of way the great skill that the man had to produce and to reproduce his own design, for he was not only the engraver but the artist and the designer as well, and that is what all great artists and engravers have been. They have been trained to do, and they have done, all their own work with their own hands. The face of the block was blackened and Bewick drew the bird with his graver in white lines, cutting the design into the wood, and it printed as it looked on the block.

Metal engraving died hard; many artists during the middle of the last century employed it. Here is a design by Turner, probably from a water color, which was copied laboriously on to a plate of steel or copper and published in *Rogers' Italy*. But metal engraving died out as a method of illustrating books because, as I have said, it required two presses, one for the illustration, another for the text; and gradually wood engraving superseded it. After Bewick had shown the way there arose a school of men and women, pupils of Bewick. Here is the work of one of them, an enlargement of a part of a design by Benjamin Robert Haydon, engraved by William Harvey, and this was engraved on wood and printed with type, though it is a deliberate imitation of a metal engraving. And that is the reason why wood engraving superseded work in metal, which required one press for the letterpress and another for the prints.

Blake also tried his hand at wood engraving, and I cannot say that he made a very great success

PAGE 34 A. VON MENZEL: THE ROUND TABLE AT SANS SOUCI. WOOD ENGRAVING FROM THE HISTORY OF FREDERICK THE GREAT, 1844

PAGE 34 J. L. E. MEISSONIER: FROM "LES CONTES RÉMOIS." WOOD ENGRAVING BY LEVEILLE, 1861

of it. Blake's wood engraving did not compare for a minute with that of Edward Calvert, who also worked under or after Bewick. This is one of the most charming original engravings on wood (Page 28), done by an artist almost unknown, but one who worked with brilliancy and skill. Calvert is one of the great names in British art, although there are few designs by him, about half a dozen, but each is a masterpiece. This was engraved about 1820 or 1830.

The art of wood engraving spread from England about 1825 to France, and in France it was taken up, as all new arts are, or newly developed arts, by the greatest of artists. The most important book which appeared in France was published in 1828 by Curmer, an edition of *Paul and Virginia*, which contained designs by all the Romanticists, engraved by English men and women. This design was made with a hard lead pencil by Charles Jacque on a tiny wood block one and one-half or two inches in length. Then the engraver got hold of it and made what he thought he should out of it, and that was the end of it, for the drawing, being made on the block, was all cut to pieces in the process of engraving.

From France the art was carried to Germany and was taken up by the greatest of German artists, Adolph von Menzel, and his work too was done with a hard lead pencil on the wood block, with probably a certain amount of wash in some of the backgrounds. All that work was done because Menzel loved it and cared for it, and it was done so well because he knew his trade. Yet he had to learn it himself; and not only this, he trained his own wood engravers to follow his lines. His greatest work is in the

Life of Frederick the Great,[1] but Menzel illustrated many books during his long life. He is the creator of modern illustration. Menzel told me that although it was the hardest work in the world it was the most delightful, a positive proof that this great artist found nothing too big or too little to which to devote his genius. Look at the character in the tiny heads of Frederick and Voltaire and the others around the table, the effect of moonlight (Page 31), and in the other design the rendering of the retreat in the snow—they are great art. There are hundreds of other fine designs in the book.

Another man who about the same time was working in France was Meissonier. His illustrations to *Les Contes Rémois* (Page 32) will make Meissonier live long after his paintings are forgotten. The names of Meissonier's engravers were Lavoignat and Leveille, and Menzel's Bentworth, Vogel, and Unzelmann.

The art then came back to England, and that happened in this way. When Menzel had issued his *Life of Frederick the Great* (1840), the English engraver Dalziel showed it to the pre-Raphaelites, and Rossetti made this design, which Dalziel engraved for William Allingham's *Music Master* (1855). Every one of these artists took their illustrations just as seriously as they took their paintings, as this study in pen and ink proves, and here is one of the illustrations by Rossetti for Moxon's edition of Tennyson, the great illustrated edition, 1857, (Page 35) the greatest book of the fifties published in England. It contained Rossetti's design for the "Palace of Art." He, however, was never satisfied, and no artist was ever completely satisfied with

[1] *The Life and Times of Frederick the Second, King of Prussia.*

PAGE 34 DANTE GABRIEL ROSSETTI: THE PALACE OF ART. FROM MOXON'S EDITION OF TENNYSON, 1857. WOOD ENGRAVING BY DALZIEL BROTHERS

PAGE 37 W. HOLMAN HUNT: THE LADY OF SHALOTT. FROM MOXON'S EDITION OF TENNYSON, 1857. ENGRAVED ON WOOD BY DALZIEL BROTHERS

wood engravings after his designs, but they are all we have. Rossetti even expressed his feelings in verse:

> O woodman, spare that block
> Or cut not anyhow.
> It took ten days by clock,
> I fain would save it now.

Look at this design of Holman Hunt's. Nothing that he ever painted approached the "Lady of Shalott" in the same volume (Page 36). Every line is full of meaning, full of grace and beauty. Look at the loom and the room in which she was working. See how the circle of the loom is repeated in the windows and note the grace of the figure. It is one of the most beautiful examples of British art. There are other illustrations in the volume by Millais which are fine, but most of the rest are of little merit.

A greater man than any of these illustrators, a greater technician, was Frederick Sandys, and this is an illustration to one of George Meredith's poems "The Old Chartist," which appeared in a sixpenny magazine, *Once a Week*, in 1859 or 1860 (Page 39). Can you find anything of that sort in the *Ladies' Home Journal?* Both were issued for the people. That was the sort of thing our fathers were brought up to, and what are we being brought down to by the business man in art who knows what the people like and gives it to them so long as he can fill his pockets to overflowing?

John Millais made many designs, among them a series of illustrations to *The Parables*. Look at this one of "The Sower" (Page 40). I know of nothing better in the art of illustration or engraving, and

yet it is just a design made for a page illustration in *Good Words*, another popular paper, but where can you find a finer study of a hillside than that? There is nothing better in paint by Millais or any other of the pre-Raphaelites. He did not confine himself to one particular sort of work; it was all in his day's work. As Whistler said, "A man who cannot draw everything cannot draw anything." Please remember that Millais showed in this illustration to Trollope, engraved by Joseph Swain, that the crinoline was beautiful. Everything in the world but billboards is beautiful if you can see it—but they are damnable, and you can't help seeing them.

Fred Walker was one of the younger men, one of the great artists of England in the sixties, and that period was called the Golden Age of English Illustration. If any of you can find any old volumes of the first ten years (1860–70) of *Once a Week*, or *Good Words*, or *The Cornhill*, you will have some good examples of the graphic art of that time. Fred Walker made most of the illustrations for Thackeray's books, after the author had been compelled to admit he had failed as an illustrator.

George Du Maurier began as an artist. His early drawings were full of detail and elaboration and fine as anything that has been done, yet renderings of the maligned Victorians (Page 39). But he found the people did not come up to his level, so he got down to theirs and degenerated into a popular-mannered hack, the idol of the altruistic and the literary.

Whistler also found himself among the illustrators. This print (Page 41) is all we have, but it is enough to show his technique and how absolutely he mastered all sorts of media. This is a design for a

PAGE 37 FREDERICK SANDYS: THE OLD CHARTIST. FROM "ONCE A WEEK." ENGRAVED BY DALZIEL BROTHERS

PAGE 38 GEORGE DU MAURIER: FROM "PUNCH." WOOD ENGRAVING BY JOSEPH SWAIN

PAGE 37 SIR JOHN EVERETT MILLAIS: THE SOWER. FROM "THE PARABLES." ENGRAVED ON WOOD BY DALZIEL BROTHERS

PAGE 38 J. A. McN. WHISTLER: BOWL AND JAR. FROM A CATALOGUE OF BLUE AND WHITE NANKIN PORCELAIN. DRAWN WITH BRUSH. AUTOTYPE

PAGE 43 J. A. McN. WHISTLER: THE MAJOR'S DAUGHTER. FROM "ONCE A WEEK." WOOD ENGRAVING BY DALZIEL BROTHERS

Catalogue of Blue and White Nankin Porcelain belonging to Sir Henry Thompson, which Whistler illustrated. All the designs were drawn in sepia or blue and reproduced photographically. I don't think you can find anything in Japanese art more perfect than that bowl and jar. They are perfect. There is not one single bit of work which is not perfect, and it is one of the great examples of modern illustration. There is not a bit of shadow or tone; it is all pure drawing, and it expresses everything about the objects.

The other design, which was made on a wood block by Whistler (Page 42), shows exactly the way in which he worked with a pencil and pen on the block. There are four or five drawings, not engraved, by him now in the Library of Congress in Washington, soon to be on exhibition.

One of the great developments in illustration was the publication of the London *Graphic*, which was started in 1869. This drawing is by a man named W. M. Ridley, who is scarcely known, but if all his drawings could only be published again today he would be known as a very great artist. To the early numbers of *The Graphic*, Herkomer, Luke Fildes, Gregory, and many other well-known artists contributed drawings which made their reputations.

Another artist, Arthur Boyd Houghton, who also worked for *The Graphic*, came over to America in 1869 and made a series of studies all over the country for the journal. This (Page 45) is in the Tombs in New York. See the way he has given that whitewashed wall, with the figures against it, getting color out of pure white paper. He was justly regarded as one of the greatest artists of half a

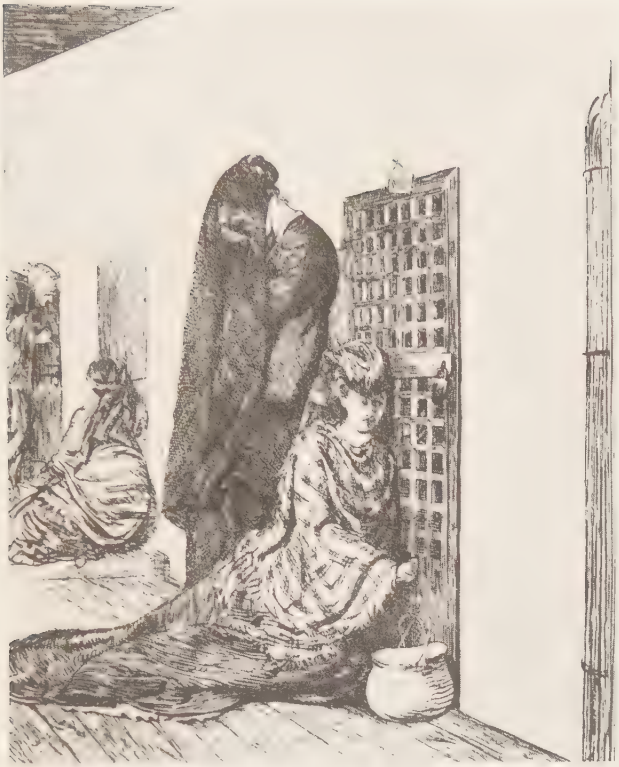
century ago. He also illustrated many books. An edition of the *Arabian Nights* is his best-known work. This was engraved and published by the Dalziels.

Another was James Mahoney, who illustrated *Scrambles among the Alps*, containing his finest designs engraved in extraordinary fashion by Edward Whymper, the author of the book.

Frederick Shields illustrated Defoe's *Plague*. How faithfully and intelligently he has studied Rembrandt and adapted him to his own needs! As fine in composition and light and shade as a Rembrandt, yet only an illustration in a sixpenny book.

Greater probably than all, because he was so simple and direct, was Randolph Caldecott. Nothing could be more simple than this mad dog (Page 46); if one line, one touch, were left out, there would be no dog. Caldecott did a great deal to develop color printing in England, working on his toy books, which were engraved on wood and printed in color by Edmund Evans.

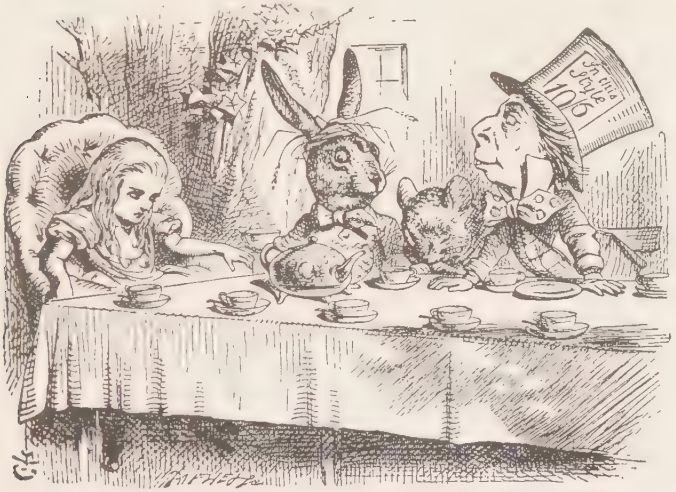
One thing that happened at this time was the relief of the artist from the drudgery of drawing on the block. Every one of the engravings I have shown you was first drawn on the wood block, and every one of them cut to pieces, and the artist had no redress whatever if the engraver spoiled the drawing in engraving. But someone, somewhere, about 1875, conceived the idea of photographing the drawing made on paper on to the wood and engraving it. The consequence was that the drawing was preserved, and if it was a portrait of a place the artist did not have to reverse it on the wood. If the engraver went wrong he could not blame the artist, as he did before; the engraver got the blame,



PAGE 43 A. B. HOUGHTON: THE TOMBS. FROM "THE GRAPHIC," 1869. WOOD ENGRAVING, ENGRAVER UNKNOWN

PAGE 44 RANDOLPH CALDECOTT: THE MAD DOG. FROM CALDECOTT'S PICTURE BOOKS. ENGRAVED ON WOOD BY EDMUND EVANS

PAGE 49 LORD LEIGHTON: SAMSON CARRYING OFF THE GATES. FROM DALZIELS' "BIBLE GALLERY." WOOD ENGRAVING BY DALZIEL BROTHERS



PAGE 49 SIR JOHN TENNIEL: FROM "ALICE IN WONDERLAND." ENGRAVED BY JOSEPH SWAIN

ENGLISH VILLAGE. FROM "A ROUND OF DAYS" BY G. I. PENWELL AND I. W. NORTH. ENGRAVED BY DALZIEL BROTHERS

where it often belonged, the drawing was saved, and the artist was free. The drawing was photographed on the block and cut by the engraver, and then printed.

After this came the great Tenniel. Some of his works are among the treasures of the South Kensington Museum. But he will live by *Alice in Wonderland* (Page 47). He is forgotten as a caricaturist and cartoonist, and his technique, though easy to engrave, is poor.

Another volume that was issued at this time was Dalziels' *Bible Gallery* (1875). This design (Page 47) by Lord Leighton is one of the finest that he ever drew in his life. This volume was not issued till the drawings made by the illustrators on paper could be photographed on wood. The originals are in London at the Victoria and Albert Museum.

Madox Brown, one of the greatest modern English artists, too great to be a pre-Raphaelite, also made a design for the Bible. So did Burne-Jones, and all these men were proud to work as book illustrators. They did not look on illustration as an easy way of making money, but as a great art.

Charles Keene's drawing in pen and ink for one of his *Punch* pictures (Page 51) is as fine as anything he ever did, as fine as Hogarth. He was able to work in his later years without having his drawings cut to pieces. I have put two illustrations on the same slide to compare his work with Leech's, then the great man, now ignored by artists. Charles Keene during his lifetime was almost ignored. Now he has come into his own, and you should study his drawings in *Punch*.

Thirty years ago triumphs in illustration and engraving were produced in this country in the

magazines of the years between 1880 and 1900, and the greatest of wood engravers were Americans. Timothy Cole is regarded as a master-engraver; so were Henry Wolf and Jüngling. Cole's prints were published in *The Century Magazine*. If you want to know something about the arts of illustration and engraving, look over *The Century Magazine*, *Harper's* and *Scribner's*, and see what was done then in the graphic arts from 1880 to 1900. We have had during the last half-century some of the greatest designers, some of the greatest engravers, and the greatest printers, and the greatest art editors of modern times. Abbey, Cole, De Vinne, Drake—how many of you know their names? And their work appeared in the pages of those magazines. The magazines are still being published, but I do not think you will find in any number today any wood cut or wood engraving like this by Abbey or the engraving by Cole (Page 52).

In the next lecture I shall show you how we have gone forward and gone backward, but at that time there issued a series of masterpieces from those magazines, and it is your duty as students to study them and to study the illustrated books that I have shown you. Will you? I doubt it.

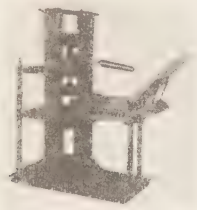
Abbey made his name by illustrating *Herrick's Poems*. You can find any number of faults in this design, yet it made a sensation at that time. But Abbey went on and on, and some of the designs in that edition of Herrick are among the best things that he did. They were all drawn for the wood engraver, and probably some of the earliest were drawn on the wood block.

I have brought you up to the present, and I think I have proved to you that in the past, in the graphic

PAGE 49 CHARLES KEENE: THE UNRECOGNIZED VISITOR. FROM "PUNCH," JULY, 1866

PAGE 50 TIMOTHY COLE: HEAD OF FLORA, FROM BOTTICELLI'S SPRING. WOOD ENGRAVING FROM COLE'S "ITALIAN MASTERS"

arts, there was great work done, but in the present, in certain places, equally great work was done till the war; but little that is good is now being done in this country or any country, and it is up to you students to study and to practice and demand to be taught how to do it, and then to go to work and do something better than the work of the past. Will you? You have the chance, even to convert the editors and engravers and printers again to do good work, but you must put your hearts and your hands—your properly trained and skilled hands—into your work, or America artistically is doomed. The future is in your hands. Will you carry on tradition or go down in the mad race for money—a race in which the runners are drawing near the goal? Americans are about two laps behind the leaders, and we are too blind, too stupid, too lazy, too conceited, to know what the rest of the world knows.



OLD HAND PRESS

PAGE 59 JAPANESE WOOD CUTTER AT WORK. FROM PRINT IN THE ART INSTITUTE OF CHICAGO

THE GRAPHIC ARTS ILLUSTRATION MODERN METHODS SECOND LECTURE THURSDAY APRIL 8 1920

IN the first lecture I tried to tell you something about the beginnings of illustration. I want to speak today of its modern developments. But before I do, I would like to say that, if there is any statement I make that you do not understand, I wish you would ask me about it, or write me, and I will try to make my meaning clear. But no matter how much I talk, or what I say, unless you are willing to do your part and look things up, and then work with the facts you have acquired—well, I don't think you will learn very much, or do anything of much importance, for without the hardest

work you will never do anything of the least importance in art at all.[1]

There is another sort of work, another phase of art, which has been made great and good use of during the last years by illustrators, and that is the work of the Japanese—the Japanese color print. It is the custom today in this country, and in European countries, to make much of the Japanese color print. The Japanese color print was never appreciated in Japan by any but the people, any more than the illustrations in the books of yesterday were appreciated by any of the artists of this country, and it is only because a few European artists saw the beauty of the works of Hiroshige, Hokusai, Utamaro, and other great artists, that the Japanese themselves began to find they were beautiful. Here the people do not yet appreciate what we have done in illustration. The Japanese illustrators were very little better appreciated than the pavement artists who used to decorate our streets before we got bill-stickers to do our decoration, but there was in Japanese work wonderful charm and wonderful technique. So there was in American illustration. Prints by Hokusai, in black and white, are perfect as models of design for printing. It was in prints like these that Whistler found his Nocturnes. He said when he saw Hiroshige's Falling Rocket (Page 57), it gave him the idea for the Nocturnes, and he, inspired by that print, made his paintings and his drawings after the Japanese fashion, only carrying out the traditions of the East in the West.

But the Eastern print has been of great value to the Western illustrator in many other ways, as

[1] Not a single student ever asked me a question or wrote me a line. This is universal in America where students know everything until they try to do something, when they find they do not know anything, and then whine.

PAGE 56 HIROSHIGE: THE FALLING ROCKET. THE INSPIRATION OF WHISTLER'S NOCTURNES. COLOR PRINT

JAPANESE PRINTER AT WORK. FROM ILLUSTRATION IN BOOK IN THE ART INSTITUTE OF CHICAGO

the color print in line, in form, and above all, in method, is the simplest and most direct way of making a printing surface that we know, and a great deal that we now know and a great many of the improvements in engraving and printing that have been made are due to the Japanese.

Take this study of a bird (Page 61). Nothing could be more simple and more direct. And yet it probably was used in the most commonplace of books, or as a single print, but it has been an inspiration to many Europeans. And here is an example of it in the work of an Englishman, Edgar Wilson (Page 62), who, following the Japanese methods and using the pen at the same time, instead of drawing with the brush on the wood block in which the design was afterward cut and printed, carried on the tradition of Japanese art in our way and by our technique. Bracquemond, Felix Regamy, and many other European decorators owe an endless debt to Japan.

They are by no means alone; here is another man who used the Japanese formula. You can find in some of the sketch books of Hokusai, and other Japanese masters, drawings of birds like this. Yet this design was reproduced on the title-page of a French edition of Poe's *Raven*. It is by Manet (Page 63), a proof that as soon as Europeans saw Japanese prints, they took advantage of Japanese methods. The Japanese artists have also shown the world in their prints the way in which the work was done. Here is a wood cutter at work holding his knife vertically in his hands, cutting the design on the block (Page 55). I do not know the date of this print or the name of the artist, but this is the traditional system, and it is because the

Japanese artists follow tradition that their work is good, and we have not in any way been able to improve on it.

Anyone who wants to make a color print, instead of commencing by making a very bad oil painting, or a worthless water color, should commence by making a drawing in black and white; that is the basis of the whole system—that is the way the Japanese commence. When they have made their design on paper in black and white, they paste it down on a wood block, and the engraver cuts through the paper into the block, cutting the design all to pieces, as that man is doing with his knife. When that was done the next thing was to put on the color, and instead of making, as the European artist usually does, a very bad oil painting or a worthless water color and trying to copy that by lithography or color process, they cut as many blocks as colors, mix the colors themselves and put them on, one after the other, one color from one block. It is utterly impossible to get color by any other method. Nearly all our books and magazines today are illustrated by what is known as "the three-color process." You can see the result on the cover of every magazine, almost, that comes out, and the only difference between them is that sometimes one is rather worse than the others. They are nearly all devoid of every merit, and they are all the most popular in the American world. They are mechanical photographic travesties of artless, worthless paintings mostly.

The Japanese have an entirely different method, and that now is beginning to be carried out here. But you students must be properly trained technically before you can do the work decently. There

PAGE 59 BIRD. JAPANESE COLOR PRINT IN THE ART INSTITUTE OF CHICAGO

PAGE 59 EDGAR WILSON: FISH. PEN AND INK DRAWING DONE WITH JAPANESE FEELING

PAGE 59 E. MANET: ILLUSTRATION FOR POE'S "RAVEN." DRAWN IN JAPANESE FASHION WITH BRUSH AND INK

PAGE 65 WALTER CRANE: COLOR PRINT FOR "BEAUTY AND THE BEAST." ENGRAVED AND PRINTED BY EDMUND EVANS

PAGE 65 F. MORLEY FLETCHER: MEADOW SWEET. KEY BLOCK AND FINISHED PRINT

are certain men at work, and others have been doing good color work for years. Here is one of the earliest examples, a design by Walter Crane, though this was not done in the Japanese way. Crane made the drawing in black and white, then it was engraved on the wood block, and he added the colors he wanted. The wood blocks were engraved by an English engraver, Edmund Evans (Page 64), and as many blocks were made as colors were wanted, and they were applied just as the Japanese did, only with this difference, that they were printed on a steam press and in this way Crane's and Caldecott's toy books were made. We have advanced to the extent of using the steam press, instead of rubbing the print off the inked block, or using the wooden press. But that is the only advance we have made. The best color work is not even now done on a steam press, but by hand printing.

Morley Fletcher has studied most carefully the work of the oriental artists and craftsmen, and has succeeded in doing a series of blocks which in their way equal those of the Japanese. Yet his attitude is the European attitude; it is putting the feeling of the country around him, England, into his blocks. He has not in any way tried to imitate Japanese subjects or to make copies of them, but he has carried out the feeling of the English country, and of other European countries, in his color prints made as the Japanese make their prints. He cut the key block from which he made the print in black and white (Page 64). The other blocks, made afterward, carried the different colors. You can see how every line has been carefully drawn, and how carefully the undrawn spaces are cut out, leaving the design in relief. After that block was made there were as

many others cut as there were colors, and one was printed after the other, not on top of each other, but side by side, as a mosaic is made. And it is in this way alone that good color work can be done. Yet such printing can be done on a steam press, and can be done very rapidly, though the best work is, and always will be, done by hand.

Here in Chicago you had a very interesting woman, Helen Hyde, who died recently, and whose work is going to be shown, I believe, shortly in the Museum. Her work technically was brilliant, but a great many of her subjects were frankly imitative of the Japanese in subject as well as technique. There is no earthly reason why those of you who care for drawing and for color should not carry out this scheme of color printing. But, as I will show you in the talk on Lithography, there are simpler ways of doing color work, and even men like Morley Fletcher and other color printers are giving up using wood blocks, and beginning the use of stone and metal plates instead, because the work can be done in a simpler manner than by the slow and elaborate cutting of each block. Yet the grain of the wood gives a most interesting quality, and so does hand printing.

Emil Orlik (Page 67) has carried out the same scheme of color printing. He holds the same position on the continent of Europe, in Germany and Austria—or did before the war—that Morley Fletcher has in England. Scarcely any of the work of these men is known well over here, but it deserves to be well known. You can find some examples of it in the Ryerson Library, mostly in reproductions in the *Studio*. And if you care anything for color printing, it is your duty to study the books which contain it.

PAGE 66 EMIL ORLIK: THE SEAMSTRESS. COLOR BLOCK PRINT IN THE ART INSTITUTE OF CHICAGO

PAGE 71 GUSTAVE BAUMANN: THE LANDMARK. COLOR BLOCK PRINT IN THE ART INSTITUTE OF CHICAGO

PAGE 71 ARTHUR RACKHAM: CINDERELLA. SILHOUETTES AND WASH REPRODUCED BY PROCESS, J. B. LIPPINCOTT CO.

PAGE 72 WILLIAM NICHOLSON: LONDON TYPES. WOOD BLOCK REPRODUCED AND PRINTED BY LITHOGRAPHY

You should also read Morley Fletcher's treatise on color printing.

Mr. Baumann, who has been living until recently in Chicago, also makes color prints (Page 68). He has found that the landscape of America is just as well adapted to the color print as that of Europe, and the proof of the fact that a man is an artist is the fact that he can find beauty and find subjects around him, and then make something out of what he finds. Mr. Ruzicka has done so in New York. There is no necessity for harking back to the past ages. And I can assure you, although I have not had the experience, but I know from what I have seen, that it is a great deal easier to invent a Heavenly Host than it is to make a good print out of a Kansas farm.

Now, showing how this work can be carried out—and I said it could be done by means of the steam press and mechanical appliances—a good example is in the work of Arthur Rackham (Page 69). He has adapted the methods of the Japanese to photo-engraving and mechanical engraving. His designs are made with a pen, in black and white. The colors are selected by Rackham and given to the photo-engravers, who put them on just where he wants them. But Rackham is a trained craftsman and knows what colors to use and how to use them. As I said in the last talk, you have to stand over the printers, you have to make them work with you and for you. And if you don't, and you get into a mess, it is because you are not trained. But you are going to be blamed if you fail, if you don't know your craft. You have to be trained to do this work as Rackham is trained. I have been with him in England when he has gone into the printing

shop, and has taken off his coat and rolled up his sleeves and shown the printers what he wants and how he wants it done, and if he didn't know himself and couldn't have shown them, he would have been kicked out of that place pretty quickly. He would not even be an illustrator.

Jules Guerin carried out extremely well so long as he condescended to illustrate by the Japanese method of flat color, and yet gave to his subjects a remarkable sense of realism. His drawings for the city-planning scheme of Chicago and studies of other cities and architecture are most interesting. In figure work, too, Jessie Willcox Smith and Elizabeth Shippen Green started well—with a Bryn Mawr catalogue or calendar—but in their later work they have become more realistic—though I do not think they are so real.

Another artist who has done the same sort of work in an equally interesting fashion is William Nicholson (Page 70). He designed the illustrations and lettered the title-page and cover of *London Types*. These designs were first printed from wood blocks which he cut, but as the book was printed in a large edition it was impossible for him to do the printing himself, so he had copies made and printed by lithography instead of from the original wood blocks. But the design shows how well Nicholson understands the requirements and needs of color printing. He understands that as well as anybody now living. His posters and those of his fellow-workman James Pryde—they called themselves the Beggerstaff Brothers—are equally interesting.

In Europe the art of wood cutting has been carried farther than anywhere else in recent years by A. Lepère (Page 73). This is one of his original

PAGE 72 AUGUSTE LEPÈRE: NOTRE DAME; LE SOIR. ORIGINAL WOOD BLOCK. BY PERMISSION OF F. KEPPEL & CO.

PAGE 77 F. VALLOTON: THE BURIAL. ORIGINAL WOOD BLOCK.
FROM "PEN DRAWING AND PEN DRAUGHTSMEN"

PAGE 78 ROCKWELL KENT: CAIN. IN THE ART INSTITUTE OF CHICAGO

PAGE 79 MARIANO FORTUNY: STUDY. FROM DARILLER'S "LIFE OF FORTUNY." PEN DRAWING REPRODUCED BY PROCESS

blocks. I think it probable that he made this study of Notre Dame from nature on the wood block, and then engraved it. In it you have the perfection of original wood engraving, the perfection in European engraving, and of what the Japanese have been doing in their way for hundreds of years. There are numbers of other men who have been working; one is F. Valloton (Page 74), and he has simplified things more. I don't think it would be possible to get simpler, fewer lines and masses than he. He has cut a number of wood blocks, and every one is well worth study. I want to say, however, that we have in this country now got beyond all this thing, far beyond traditional art—far beyond all art. We have become artless but crafty.

Here are a couple of illustrations taken from a paper which used to be a credit to the city of Chicago. Now it is a discredit to the city of New York. The print this side of the slide is, as you see, from a Japanese block; the print on the other side is an American design. If you prefer that—each one of them is equally simple—to the drawing of this figure, well, all I can say is, you can do so. And that sort of work is growing in this country, and is used at the present day, and being more and more used. It is only an excuse for incompetence, laziness, and inability, to avoid the trouble, skill, and time necessary to do anything decently—provided you can do it decently. It may be the fashion of the moment, but it is only of the moment, and will not, like this Japanese print, live forever, as it has lived for a couple of hundred years. The other may make a little splutter for a moment, but it will not go on living and growing and be more and more appreciated for

all time. It is so easy to do a drawing of this sort. The perpetrator will tell you he did it the way he saw it—I mean the American print. That is a way of getting out of all difficulties, but it is not a way to become an artist. And no man who takes up the slovenly, slipshod, get-there-any-way-you-can method, is ever going to get anywhere at all. You can take my word for it or not, but I know I am telling you the truth, and as one eminent artist said on looking at drawings like this, or rather, looking at the same sort of paintings: "You can tell exactly what great artists like Velasquez or Franz Hals or Rembrandt meant when they painted a subject, but you cannot tell how they painted it. If you look at this modern work you can tell how it was done, but I will be hanged if you can tell what the duffer meant by doing it."

Rockwell Kent (Page 75) has followed Blake technically in a way, yet for himself, though drawing on paper, and his drawings are reproduced mechanically and not as Blake's were by metal or wood engraving, and Kent is trying, really seriously I hope, to carry on the tradition of Blake in those drawings which I showed you the other day. Kent has found Blake-like subjects in Alaska, but I wish he could find motives—and there are subjects quite as interesting and as good, and as romantic in the streets of New York, just as Blake got his inspiration in his little garden near the Temple in London; and I think if Kent found them somewhere on the East Side, it would be more to his credit, though his work is very interesting and reproduces very well.

But to turn from original wood cutting and wood engraving to another phase of illustration, there is a

new phase, as I told you last week, since the application of photography to wood engraving, enabling the artist to make his drawing on paper, have it photographed on to the block, and then engraved. When this was done a great advance in the arts was made.

But about 1880 a still greater advance was made. It was discovered that if a drawing were photographed on to a zinc or other metal plate, the undrawn parts washed away, and the drawing covered by an acid-resisting varnish in the form of ink, it could then be etched mechanically instead of engraved by hand. The photograph was covered by this acid-resisting ink, then slightly bitten with nitric acid, then the plate was heated and the varnish melted and ran down the sides of the lines, and not only protected their surface but their sides, and in that way a mechanically etched block was made, the design in relief, which can be printed with type, exactly like a wood cut or a wood engraving in relief—exactly as Blake had done, yet a perfect facsimile of the original drawing, a reproduction of the drawing as a printing surface. It is a very curious thing that, although this is one of the very first mechanical engravings done in France after Fortuny (Page 76), it is as perfect in its technical execution as anything that has been done in the same way to this day.

The wood cuts and the metal engravings by Dürer have never been surpassed, nor have the wood engravings by Timothy Cole, nor the mechanical engravings done by a Frenchman named Gillot, who with an artist named Chefdeville perfected mechanical engraving. There is no such wonderful work being done today as was done some

forty years ago in France and here. Always in the history of the world, when a new method of work is discovered, brilliant men capable of employing it have appeared. Martin Rico (Page 81), a landscape and townscape artist, found himself in pen drawing. He used the pen for the rendering of architecture and one of the most interesting things about his work is the directness and simplicity with which Rico got his effect, and the economy and beauty of his lines. There is not a single line wasted, and yet he got all the shimmer and the glitter of the summer sun in Venice. He suggests, too, the forms of the architecture, rather than draws them—suggests them by shadows which give the form. He is one of the masters of drawing for reproduction, for it is the reproduction of the drawing on the printed page which is the illustration.

Shortly afterward another Spaniard appeared—Daniel Vierge (Page 82). Both Fortuny and Rico were Spaniards, and the best work was done in illustration for mechanical engraving in the beginning by Spaniards. Vierge carried this system of drawing for mechanical engraving farther than anyone else, and carried it out more perfectly. Look at the way each one of his lines tells just as effectively as in the old wood cuts. Vierge's fame rests on the pages of *Pablo de Segovia*, the most perfect book and one of the first books illustrated by pen drawings reproduced by mechanical process engraving, and still one of the best. Vierge treated all sorts of subjects in this volume—figure, landscape, still life, decoration—and he tried all sorts of experiments in technique, always remembering and knowing that an illustrator must be a brilliant technical craftsman, as all great artists have been.

PAGE 80 MARTIN RICO: A VENETIAN CANAL. FROM "PEN DRAWING AND PEN DRAUGHTSMEN"

PAGE 80 DANIEL VIERGE: THE UNIVERSITY. PEN DRAWING REPRODUCED BY PROCESS. FROM "PABLO DE SEGOVIA"

PAGE 85 ROBERT BLUM: JOE JEFFERSON. PEN DRAWING REPRODUCED BY PROCESS. COLLECTION OF THE AUTHOR

PAGE 85 A. BRENNAN: STAIRWAY, CHANTILLY. PEN DRAWING REPRODUCED BY PROCESS. COLLECTION OF THE AUTHOR

A duffer may do stupid, clumsy work because he "sees that way"; an artist never does.

How wonderfully Vierge could draw architecture, and yet with simplicity and directness, so that he kept the sunlight in his drawings. They were so handled that they reproduced perfectly, and they could not be better printed today, mostly not so well. Yet that book appeared in a very small edition about 1880. It is now regarded as a masterpiece, and the greatest example of pen drawing and reproduction that exists, a mine of information for you students.

The success of Vierge's books and the reproductions after Fortuny became known in this country, and in the early 80's Robert Blum (Page 83), Alfred Brennan (Page 84), and Fernand Lungren began to follow this Spanish method of drawing. This study of Joe Jefferson by Robert Blum was published in *The Century*. In it you have an extraordinary quality of pen line which you very rarely see, you never see, in our magazines today. There is no man in the world drawing as Blum did, nor are there any such engravers and printers now, because there are few intelligent art editors, and fewer intelligent art lovers, otherwise we would not have to see the rubbish we do see. You will find those wonderful illustrations, many of them portraits like this, and prints of all sorts, in old numbers of *The Century* and *Scribner's* and *Harper's*. And just as I told you about the old numbers of *Once a Week* and *Good Words*, I want to drum into your heads that there is a mine of material worth study in every volume of *The Century* between about 1880 and 1900, and you ought to study these illustrations and try to learn from them.

There is, however, one thing you must remember, that the drawings you see in these magazines are all reduced. They were all reduced, or nearly all of them, by photography, and that gives them a look of refinement and delicacy which did not altogether exist in the originals. But Blum thought about the final print on the page as much as the drawing he was making, and how he was to get his results, and this only comes by endless practice and endless observation of other men's drawn and printed work. In that he was only carrying on tradition, and if you don't want to carry on tradition, if you don't try to do better work than everyone who has gone before you, well, as Whistler was wont to say, if tradition had not been carried on, "even the early Britons wouldn't have known how to paint themselves blue."

Blum has treated architecture just as Rico did, and this design is taken from a catalogue of a hotel in Florida, and is as fine as anything he ever did, a proof that advertisements may be artistic—if kept from the advertising man. And yet this is nothing but an advertisement, an advertisement done by an artist who considered that illustrating and advertising were as serious as any other form of art.

And now I come to an entirely different sort of work, yet done by, I think you will admit, probably the greatest illustrator that we have had, E. A. Abbey. In this design there is no attempt at getting brilliancy of sunlight, or any such effects, but an attempt to reconstruct, as in this drawing for *She Stoops to Conquer*, the life of England in the past. Abbey considered illustration just as seriously as his painting or his decoration. And even if his decorations and his paintings were wiped out, he

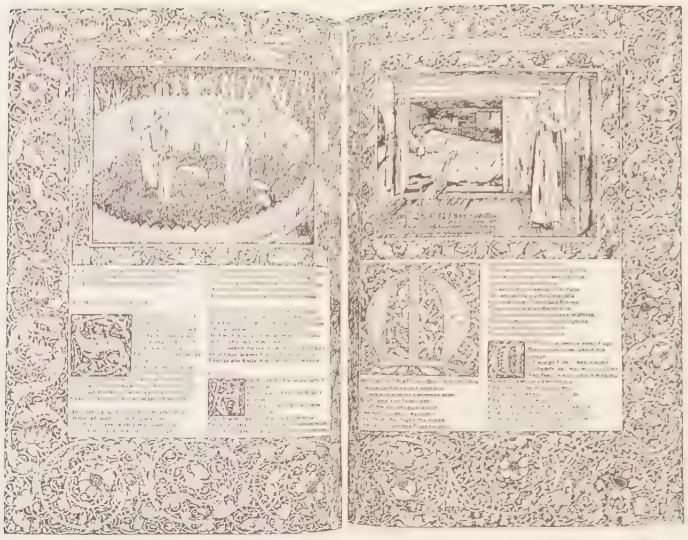
would be remembered forever by the charming illustrations that he made for *Harper's Magazine*, and the books in which they afterward appeared.

Here is another one from Goldsmith, showing better, I think, than the last the actual pen work and the handling. And although it looks freely done, it is carefully thought out and carefully carried out. It was commenced with a lead pencil, and then gone over with ink—most of these men made a pencil drawing first and then went over that with a pen. Abbey said to me once—and I believe it is true of all great artists—that he never touched pencil to paper until he saw the whole design completed before him on the blank sheet of paper. He got the whole thing in his head, and had it there before he commenced to work. But I can tell you, he didn't do it out of his head, for that man never drew anything without a model. He hunted the whole of England over for those chairs and tables in the drawing. If there was a bit of detail or anything of that sort he wanted, even though it should be in the remotest part of Europe, he never hesitated to go and get it, or get somebody to get it for him, and put it in as a tiny detail in one of his illustrations to make that drawing right. But as he said, illustration is just as serious as any other form of art, only now it is not so regarded. Working with Abbey was an Englishman, Alfred Parsons (Page 89), who designed nearly all the frontispieces and head- and tail-pieces, and drew the landscapes, in Abbey's books. Here is the title-page from one of these books which shows how brilliantly Parsons could render decoration. But he did not confine himself to that, for here is one of his drawings from nature, a little tail-piece, carried out with the utmost perfection, and carried out in

a way that has never been surpassed. Although Parsons was known all over the world years before he began to paint, and though it was not until he did paint that he became a member of the Royal Academy and other societies, yet he, too, like Abbey, will live by his black-and-white illustrations.

William Morris, a little later, determined to resurrect the work of the past. His idea, and that of the pre-Raphaelites, was that everything after the time of Raphael was worthless, and he went back to the earliest designing and the earliest printing. And he endeavored, and succeeded from his point of view, in making decorated books which have never been surpassed in modern times and probably never will be equaled again. He also designed and had his type cut and cast, made initials and borders, and almost ruined the whole with his awful stops which disfigure the pages. He set the whole up, and printed his books on hand presses, basing his work on that of the early Venetian printers of the fifteenth century, printing a notable series of volumes by the methods of the early printers. The most complete, the most important of all is his *Chaucer* (Page 90). The decorations were designed by Morris, and the drawings are said to have been done by Burne-Jones. They were not. They were by two of his pupils and friends, Fairfax Murray and Catterson Smith, but all the same the book is beautiful, and the illustrations were engraved on wood by W. H. Hooper, who had engraved the men of the 60's. There are certain things that we may not like about Morris' work, but I want to tell you that Morris carried out his ideas by the methods of the early printers and the early designers. He took very little advantage of what

PAGE 87 ALFRED PARSONS: TITLE-PAGE. PEN DRAWING REPRODUCED BY PROCESS. LOANED BY THE ARTIST



PAGE 88 W. MORRIS: THE KELMSCOTT CHAUCER. OWNED BY THE ART INSTITUTE OF CHICAGO

has been done since. And others have followed in his steps mostly without his success, because they are without his knowledge, gained by a lifetime of experiment and experience.

Morris' books were printed in his little shop in Hammersmith (Page 93), and you can see the sheets in front of the press and the two men working in the same way that the printers of Venice worked three or four hundred years before. He believed that was the right way, the only way to do good work. Some of us think it was not, and that work can be done as well by taking advantage of our present methods and so carrying on tradition.

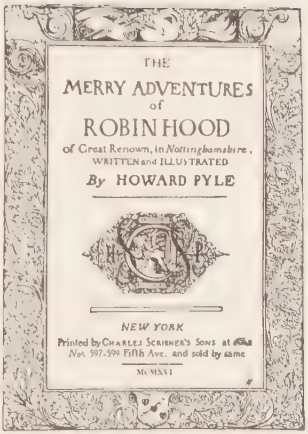
There were two men, however, who still clung, and very firmly, to the Morris tradition. Charles Ricketts and Charles Shannon were two artists who worked together, and in their illustrations, type, printing, and binding issued many volumes from the Vale Press, which was run by Ballantyne of London, from which came a notable series. They designed their type, made the drawings and cut them, and they did it surprisingly well. They also made and issued *The Dial*, the most notable English artists' journal.

There are a number of other designers and printers in England—Pissarro, the son of the painter Pissarro, and James Guthrie. There are other craftsmen now all over the world, but if you don't know how to do your own work, it won't get done. Guthrie, at the Pear Tree Press, is doing good work, much of it in the manner of Blake.

There are other artists who believe there are other ways of working, and one of them was Howard Pyle. Pyle believed that the way the artists of today should work was to take advantage of modern methods. And he designed his edition of *Robin Hood*

(Page 93) from end to end himself, yet instead of the illustrations being cut on wood laboriously by hand they were sent to the photo-engraver and engraved mechanically in the same way the work of Vierge was engraved. He used good type, he spaced his type well, and he arranged his illustrations on the page well; he drew not only the decorative head- and tail-pieces, but the full pages and the cover, and he also wrote the story. And that book made an enormous sensation when it came out here, and even impressed greatly the very conservative William Morris, who thought up to that time, 1883, nothing good artistically could come out of America. But Pyle succeeded and produced several other volumes by which he made an international reputation. At the last, however, he became a mere hack, and, dying, regretted it. In other of his books you can see how carefully, in fact, too carefully, he resurrected the past. In *Otto of the Silver Hand* he told and illustrated a German story of the Middle Ages. The drawings were made in pen and ink, photographed on to metal plates, and mechanically engraved, not cut on wood; and that is the way he carried on tradition, the way all the work that I now have to show you has been done, the way we are doing today, and the right way to carry on.

Elihu Vedder designed and illustrated *Omar Khayyám*, a notable American edition (Page 94). The originals were chalk drawings, I think, or chalk and wash, and the illustrations on each page are very well put together, very well designed, and very well engraved and printed. The book was published by Houghton Mifflin Company early in the 80's, but still lives as a remarkable example of drawing, engraving, and printing.



PAGE 91 HOWARD PYLE: TITLE AND ILLUSTRATION FROM "ROBIN HOOD"

PAGE 91 WILLIAM MORRIS' PRINTING SHOP AT HAMMERSMITH

PAGE 92 ELIHU VEDDER: ILLUSTRATION FROM "OMAR KHAYYÁM." CHALK DRAWING REPRODUCED BY PROCESS

I showed you a few moments ago one of Morris presses. This is a modern machine (Page 128) that you must encounter, that you have got to tackle and conquer if you want to become really successful illustrators, engravers, printers. This is the sort of monster on which illustrated books and magazines are printed today.

But you have got to master it, and until the Art Institute of Chicago begins to run a printing establishment, and makes you art students who want to learn illustration take that practical course, you are going to have a pretty bad time when you get out in the world and encounter the engravers and printers who want practical workmen and not untrained artists. You can see what a terrible monster the press is, and it is a very difficult thing to subdue, and I tell you that you must be its master. You cannot tinker with it, you will not be allowed to tinker with it, because if anything goes wrong with the press you will spoil thousands of dollars' worth of work, and you have got to know it before you will be allowed to work for it or with it. But it is your duty, in fact the duty of the directors of this school, to start practical training, and unless you have this training, and until you can use what you think is your wonderful ability, your wonderful ideas practically, you will not be of much use in this work. And that is the trouble with the people in the United States; we know everything except how little we do know practically. We are as unprepared in art as we were in war.

This scheme of carrying on mechanically the old methods is shown perfectly in these two designs. One is by Dürer, drawn and cut on wood, and the other a pen drawing mechanically reproduced by a

modern German, Sattler. He has studied drawing, engraving, and printing, old and new, and knows the whole craft down to the ground. And that is what we Americans have got to learn if we want to do better work than foreigners.

Here is another design by Sattler (Page 97), one of the most brilliant of his drawings, done with a splendid command of the pen and the brush. Probably that figure was put in with the brush, a solid black, and the rest with the pen. But see how wonderfully the thing is done; an old theme, but it is carried out in a new way, by modern methods, and that is what you must learn to do.

Here is still another German design by Otto Greiner. I don't like the mixture of decoration and realism which is in that page, but still it is pretty well put together in its way, and marvelously drawn, engraved, and printed. Greiner was killed early in the war.

Many Englishmen have followed in the footsteps of Morris. Herbert Horne was one. This is a page from an early magazine, *The Hobby Horse*. This shows how, with a pen and a brush, you can get richness of color in a manner that the old men knew nothing about, and it is all done with a pen, and mechanically reproduced.

Other forms of book illustrations have been carried out. In Birmingham, under the influence of Morris, several very brilliant men appeared, among them, E. H. New; he was a young man at that time, but is not so young now. He applied that old German method to modern pen drawing, and in a series of portraits like this and in book plates he made a reputation. He is now, and has been for years, making a series of drawings of the

PAGE 96 JOSEPH SATTLER: DER WUNDERFÄRBER. PEN AND WASH DRAWING REPRODUCED BY PROCESS

PAGE 99 AUBREY BEARDSLEY: ILLUSTRATION FOR "MORTE D'ARTHUR." PEN DRAWING

colleges of Oxford, in what is called the Loggan manner, bird's-eye views; and he has made them into designs which are quite as fine and quite as decorative as anything that was done by Hollar or Loggan or any of the old engravers who worked in this way. You see how stunningly the portrait is drawn. I admit that it is hard and conventional, but still it is decorative, and is very good work and prints well, and that is the end of illustration. F. E. Griggs has also done much good work somewhat in this way.

There came a time when a certain young man thought he could go quite a bit farther than Morris and Pyle, and that boy, about nineteen years old when he made his first important drawing, was Aubrey Beardsley. He believed at that time in Morris' work, but not in Morris' methods. In the design for his edition of the *Morte d'Arthur* (Page 98), he carried out all the old feeling in the decoration and the figure drawing, and it was perfectly proper in the subject that he should do so. His drawings were done with a pen and reproduced mechanically by Carl Henschel, also an experimenter, and yet he got results in his published work quite equal to anything that Morris had done. But Beardsley was a man who was not contented with doing only one thing, and during the four or five years that he was working he was always doing something new, and by different methods. In some he used certain Japanese formulas, in others old Italian, and he went on and on doing more wonderful work until it culminated in a series of designs for *The Rape of the Lock*, one of the most perfect of modern books.

I shall never forget one night when Beardsley was in my place in London, and Whistler came

in, and Whistler had never liked Beardsley, and Beardsley knew it. He was one of the most sensitive creatures that ever lived. He always carried a portfolio containing some of his work around with him, and when Whistler came in, Beardsley opened the portfolio and showed him his drawings. Whistler looked bored, but he showed him this one, among others, and Whistler looked at the drawing, and said, "Aubrey, do you know I have made a mistake. I didn't believe in you, but I know now that you are a very great artist." And the boy burst out crying. That was the type of man Whistler was. You have heard many things said about him; you have heard many things said against him. But I wish to say that he was the most devoted friend, and a most sincere critic, and most generous to artists whom he believed in and knew were doing something worth while, something that was worth doing; and he knew from that time that Aubrey Beardsley was the greatest designer England had in modern times. Those were almost his last words to Beardsley, for this was just before his fatal illness was coming on him, and Beardsley went from the success of his work to the south of France to die. The lives of two men, Keats and Beardsley, are almost identical. Both of them will live, one in literature and the other in art, forever, and both were killed by criticism—the spite of the little toward the great.

A Frenchman, too, who was working at the same time, was Carlos Schwabe, who made a series of illustrations that are very remarkable, for Zola's *Le Rêve* (Page 101). You can see the feeling of the old work in this drawing, yet it is carried out in the new way. The combination is perfectly stunning,

PAGE 100 CARLOS SCHWABE: COVER AND TITLE FOR "LE RÊVE." PEN DRAWING REPRODUCED BY PROCESS

PAGE 103 R. ANNING BELL: JACK THE GIANT-KILLER. FROM BANBURY CROSS SERIES. EDITED BY GRACE RHYS. PUBLISHED BY E. P. DUTTON & CO.

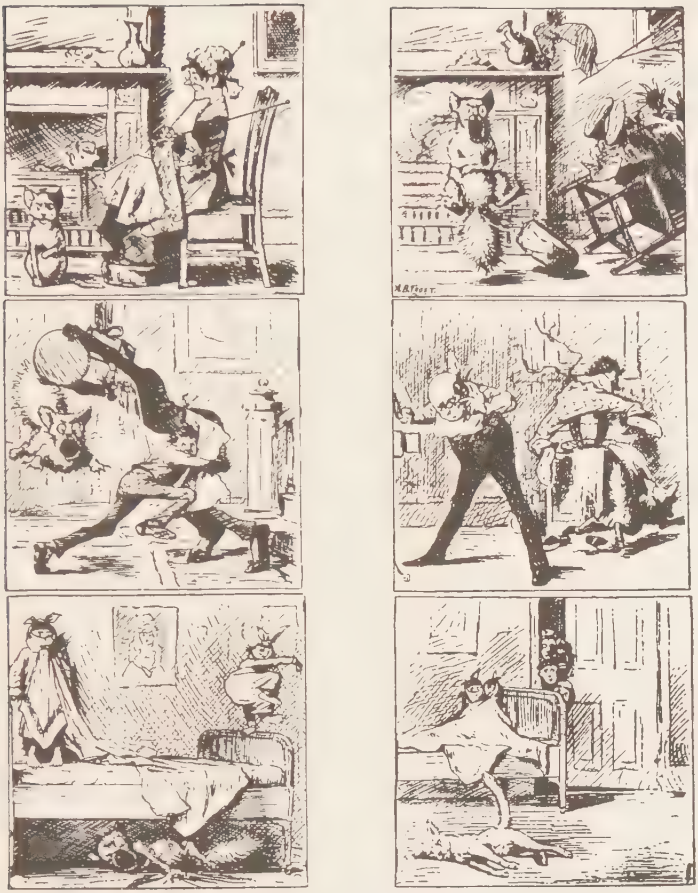
as fine as anything I know in the printed book. And yet it was published in parts which sold, when it came out, for ten cents a copy.

Anning Bell (Page 102) is another Englishman who, in a series of children's books, one of which is the story of Jack the Giant-Killer, from which this is taken, did some fine work. There you see the use of simple pen lines in contrast with great masses of brush work. And again I want to call your attention to the importance of being able to make your masses tell, and to make them in such a way that they will print. That is what is wanted—not only to get drawings that will look well on paper as drawings, but you have got to make drawings so that the mechanical engraver or the wood engraver can engrave them, and the printing press will print them. It is not the drawing you make that counts, but it is the print that counts. It is the printed page which is seen. The people may not like it. That does not matter. But what does matter to you is that you have got to draw it so your work will print, and then the people can go hang. You should not work for the people, but for yourselves, but you must know how to work.

I have not shown you any drawings, scarcely, in wash, for this reason. If you make a wash drawing, you make it just as you make any other wash drawing, but there are certain things to be learned. No wash drawing has ever been printed perfectly. I do not believe one ever will be. The print seems pretty good until you see the original, and then you come suddenly to the conclusion that it is usually pretty bad. But pen drawings can be perfectly facsimiled. Wash drawings cannot, yet they are used everywhere today.

Now we will turn to another sort of work, the work of the comic artist. Though you might not have thought so, there was more fun among the Germans—at least before the war, I don't think there is much now—there was more sense of humor among those people than anywhere else, and not only that, they knew how to make funny drawings that would print, and William Busch, in his endless comics published in *Fliegende Blätter*, and other papers, did know how to make drawings of this kind. How many of the artists on our papers know how to make drawings which are comic—or even artistic? Compare drawings like that with such as appeared in *The Chicago Tribune* this morning!

Forain is a great French comic or satiric artist. He has made endless drawings for the *Figaro* and other French papers. There are an endless number of men we look at for their humor and their art—they want no legend to explain them—in every country all over the world, there are men who possess this power, except in this country. We have scarcely one real comic artist, one cartoonist. There is one, and he is Arthur Frost (Page 105). His technique is not good. It is, in comparison with that of the foreigners, very poor. But there is something expressive about his facts and fancies that the so-called American caricaturist doesn't understand and cannot approach, or come anywhere near. There is not a single man in the United States of America who can make a drawing like Frost's, though W. A. Rogers is very good indeed, yet every newspaper in the country has a cartoonist, and a funny man, but does anyone laugh at a funny drawing in the newspapers? You weep for a people who can stand such rot.



PAGE 104 A. B. FROST: OUR CAT EATS RAT POISON

PAGE 107 PHIL MAY: THE PARSON. PEN DRAWING REPRODUCED BY PROCESS, IN COLLECTION OF THE AUTHOR

An American who has had a wonderful success is Charles Dana Gibson. But unfortunately Mr. Gibson devoted himself to one sort of subject. He has succeeded in that, but he seems to have tired of it. He certainly did, with his Gibson Girl, make some very charming studies, but I have no use myself for his political work, and I think that if Mr. Gibson had confined himself to his Girl, he would be a great deal better known today artistically, and have a considerably higher artistic position than he has. I think there are many people who can do political caricatures as well as he can, but I don't think there is anyone who has been so successful as he has with charming young persons, and he has drawn them charmingly. He has endless imitators, and imitation is the source of success today. Gibson, too, knows his craft.

W. G. Baxter, an Englishman, was a great comic artist. Nobody in this country has ever been able to make a design like this. The character is marvelous. Nobody here has rendered that in the way that Baxter has. And yet it was published in a very vulgar comic paper, *Ally Sloper's Half-Holiday*. But is there anything among the comic drawings, such as "The Gumps," or "Bringing up Father," or anything of that sort, which disgrace the American press today, that comes anywhere near it? If there is, I would like to see it. But I cannot find it, nor can you. The American comic artist would be pathetic, if he were not a disgrace.

Another Englishman was Phil May (Page 106), and he was as great an artist as Charles Keene, whose work I showed you in the last lecture. May really cared for comic art, and succeeded in doing a very remarkable series of designs in *Punch*. He was one

of the two or three artists ever on that paper. His drawings look as though they were knocked right off. They were nothing of the sort. That drawing I know, because I saw him make a part of it, was drawn again and again. The face is a wonderful study. His great aim was to simplify and simplify. And although anyone who saw his work might think his first attempt as near perfect as it could be, yet he would lay a sheet of thin tracing paper over the apparently finished drawing, and go over each line, here and there leaving out one or two, or adding another, and I have known him to do that several times before he was satisfied. He, too, regarded illustration as seriously as any other form of art, and that is the reason why he became a great artist.

In Holland and Belgium there are a certain number of men who have taken up the profession very brilliantly and in their own way. This study of the Dutch street is notable, giving the Dutch feeling and character as well as De Hoogh could paint it, and it proves that nationality can be given to art and to illustration.

Here is another by Garcia Ramos, showing the way in which the modern man works in Spain. In fact one could go on endlessly, but you should at least see the work of Tegner the Dane and Larson the Swede. You must look in the illustrated magazines and books of those countries and find it. Paul Renouard is a great French illustrator. This study (Page 111), done in chalk, though the chalk is used in the same way as the pen, is as fine as a Degas. His portraits are among the most stunning things I know of. He has treated not only the Ballet Girl, but politics and the horrors of war in the pages of *L'Illustration* and *The Graphic*, in a

fashion that is utterly unknown over here. Once he worked for *Harper's Weekly;* now there is no *Harper's* or any other similar weekly in this highly civilized country.

There are one or two men working still who believe in illustration, and this is one of them, an Englishman named E. J. Sullivan (Page 112), whose illustrations to Carlyle's *Sartor Resartus* are great works of art. He has illustrated a number of other books. In drawing, in arrangement, in knowledge of line, they are as fine as anything that has ever been done.

He does not confine himself to this sort of work alone, but has illustrated books as diverse as *Omar Khayyám* and *Tom Brown's School Days*, and lately a series of *Caricatures of the Kaiser*. They are all alike in showing great knowledge of drawing and a perfect knowledge of how to work for reproduction. He is one of the men who has been carefully trained in the practical school of the printing office and the newspaper office, and knows how to make drawings that will print. And not only that, at the present time he is one of the men in England who are teaching people to draw; and he can teach because he can work himself.

An artist in this country who is doing very good work in charcoal is F. Walter Taylor. This drawing (Page 111) is taken from a recent number of *Harper's Magazine*, so it proves very plainly, though there is mighty little good work being done, there are some men, a few in this country, who are trying to carry on, in the right spirit by the right methods, and find that certain editors will acknowledge they are right and accept their work.

Taylor also does excellent portraits. I don't think you have seen anything I have shown that is more

stunning than this charcoal portrait (Page 127) which he intends to publish in some newspaper or magazine. It is perfectly done, and yet it is done by an illustrator who is hardly known in his country, and outside of it, scarcely at all. And yet he is a very great artist. Why do not the American people have their portraits drawn instead of being photographed? Possibly it is quicker and cheaper; those are our ideals.

The Institute possesses a number of charcoal drawings by F. Hopkinson Smith, which are well worth study, for Hopkinson Smith was an interesting technician and understood drawing for the press, invented it so far as charcoal drawing is concerned. I must say I never saw a pupil studying those upstairs, or even looking at them.

And there is another thing a propos of pen drawing. I believe that the rage for the reproduction of bad oil paintings and worse water colors is drawing to its close. Take up any of the magazines of enlightenment and public opinion, which circulate by the millions in this country today, which the average reader picks up, commencing at the back, spits on his fingers and turns forward to look at the advertisements, and gradually comes to the illustrations and the text, and when he gets there he throws it away! Nobody ever looks in those magazines for art or literature. They are looked at for advertisements, and I believe some ladies look at them for house furnishings and dresses and so on. But to look at them for art—there is scarce any art in them. There is no art scarcely in the daily papers. It is not intended that there should be any art in them, unless in the advertisements. But I believe there is coming very shortly a revival in pen drawing, and through advertising, and that

PAGE 108 PAUL RENOUARD: A PURVEYOR OF LIQUID REFRESHMENTS FOR ANARCHISTS. CHALK DRAWING REPRODUCED BY PROCESS. IN THE ART INSTITUTE OF CHICAGO

PAGE 109 F. WALTER TAYLOR: THE NURSE. CHARCOAL DRAWING REPRODUCED BY PROCESS. DRAWING LOANED BY THE ARTIST

PAGE 109 E. J. SULLIVAN: "SARTOR RESARTUS." PEN DRAWING REPRODUCED BY PROCESS

is one of the reasons why I advise you to study pen drawing, and if it appeals to you, you may have a chance of doing something with your work, if you know how to do it, something to resurrect illustration.

Here is a drawing in wash that is really stunning, by George Harding, the only man properly equipped and trained who was sent abroad to study the war, and the only man who really recorded the war. He is the one American who made good, and has made in this design and others a record of the part we played in the war. He is almost the only man who did really good work in any country. Yet every other nation, England, France, and Italy, sent their best men to do this work. We wanted a little variety in this program, and we sent some who made the most commonplace drawings that you have ever seen; at least some of them did.

Newspaper illustration is another phase, and here is a design done in the old wood-cut fashion with two tints, which has been published as a calendar and is a remarkable example of what can be done by a man who knows how to do it. The same firm, the Franklin Printing Company, has issued a circular in which the ideas of Morris have been carried out in newspaper work; it is that sort of thing that we want to do today. It can be done. The only trouble is that the average art editor knows nothing about art; the average engraver knows mighty little, and the average printer doesn't care. That is the reason why we are submerged under the rottenest work that was ever done in this world. The artists can do good work, but they don't have the chance.

Here is another one of those great printing presses, a multiple machine (Page 128). The paper

goes in, off these rolls, goes through the various cylinders, and comes out printed and folded. There are two of these presses coupled together. And although Dürer would be contented probably with forty or fifty proofs of one of his blocks in a day, those two machines I believe will turn out a hundred thousand copies of a completed newspaper in an hour. And that is the kind of monster you have got to work for, and have got to know and have got to manage, and it does take some study and training.

Franklin Booth (Page 118) understands the machine. This effective design came out in a daily paper only a week or two ago, and prints remarkably well, and is an example of how one should work for cheap and rapid newspaper and magazine work. He has been successful, and his technique is now imitated by every little thief in the land who can imitate but not invent.

There are endless ways of drawing for the papers. Here is another, a very clever drawing done by an Englishman—and when I say "clever," I mean "good." Look at the way he makes his solid blacks, yet the artist has broken all his blacks up in small dots, and got a remarkable bit of color, and it has printed well.

One could go on forever. This design (Page 117) in the *New York Evening Post* is by a man, C. B. Falls, whom I don't think you appreciated at all in Chicago. He studied in this school, and he has gone to New York, and is doing in his way some of the best work in the United States. But he learned his craft in New York shops; he could not learn it in this school. He is a highly skilled technician, a highly trained artist.

This newspaper advertisement (Page 119) was taken from *Jugend*, one of the German newspapers, just before the war, a wonderful thing, an advertisement of Benedictine. If we were advertising that here, and making a drawing for the advertisement, we would put in a great many details, and in one corner, perhaps half-hidden, we would put the thing we are advertising, but these people wanted to advertise Benedictine, and they do it in a direct way, and in a telling way, yet it is a work of art.

This is one of those things that was printed at the rate of a hundred thousand copies an hour in the *New York Times*, a reproduction of a lithograph made some years ago (Page 120). They are doing no such work today in New York, but it is a proof that a thing done technically right will print, because it was printed, and it was syndicated, electrotypes or moulds sent all over the land, and there were several million copies of it on the same day, in papers published all over the country.

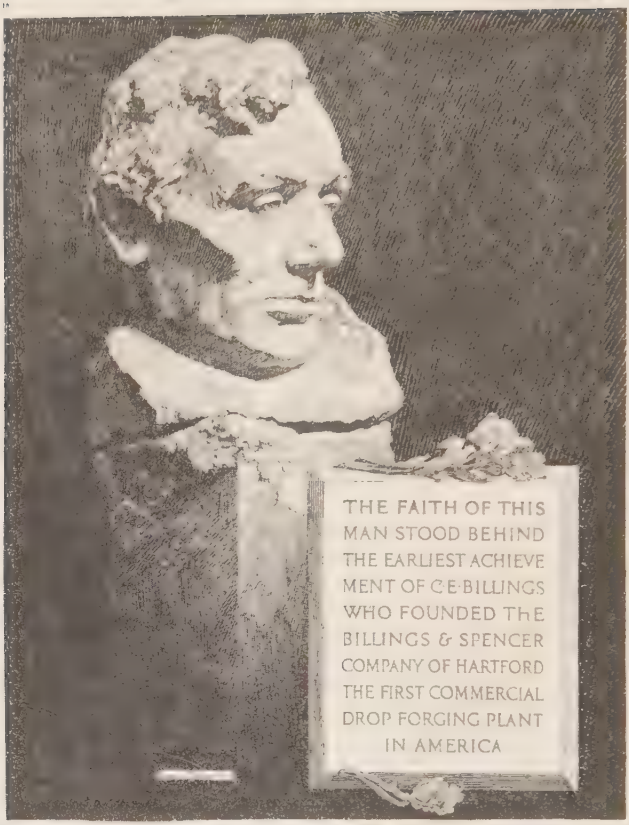
I am not impressing upon you so much the artistic side as the technical side of illustration, for that is most important. Unless you are technically trained you cannot do technical work, and illustration is technical.

This is the sort of thing that the American public now loves. This is the kind of thing we have come to. And it is going to get worse. I showed this slide in Washington the other day, and I also had a paper containing more drawings of the sort, and after advising the people and telling them what I thought of that wonderful design, and what I thought of a nation that could appreciate such pathetic rubbish, such a disgrace to art, a lady came up to

me after I had concluded, and she said, "Would you mind giving me that copy of the paper that you put in your pocket, because I want to take it home to Sammy, he likes those things so much." That is the kind of thing that Sammy is being brought up on, and when Sammy grows up he will never get away from it. It is our duty to get Sammy away from that rot, and to stop papers from printing that sort of thing, or this country is doomed artistically. And the only way to stop it is to train illustrators properly, and to train them to show by their work that illustration is a serious profession. It is almost alone in what is known as commercial art, commercial illustration, that we are doing any art work of any value—though what sort of art is there which is not commercial? But it is in advertising art, to the advertising pages of the magazines and papers that we must turn today for our illustration. Americans are become a race of shopkeepers, and they believe today they must advertise—tomorrow they will do some other stunt—but today it is art in advertising. Most of it is artless—a hodge-podge of photographs and frills. But there is some good work done, though you have got to wade through oceans of rubbish on the back pages to find it. One phase is that so completely sterilized and standardized have we become that no sooner does some artist evolve a style of his own, or rather a technical mannerism, than a whole horde of imitators pounce on it.

Lately Mr. Franklin Booth did this, as I have said. He worked out a combination of white line and oil paint handling, in pen and ink, which was amusing and printed well. Instantly a gang of thieves and prigs and ad men and business men

PAGE 114 C. B. FALLS: WOOD BLOCK DRAWN AND CUT BY THE ARTIST



PAGE 114 FRANKLIN BOOTH: PEN DRAWING FOR NEWSPAPER ADVERTISEMENT REPRODUCED BY PROCESS

PAGE 115 ADVERTISEMENT FROM "JUGEND," A GERMAN PAPER. PEN DRAWING REPRODUCED BY PROCESS

The New York Times
Sketches of the Panama Canal by Joseph Pennell, N. A.
Made at the Isthmus Especially for The New York Times

PAGE 115 JOSEPH PENNELL: STEAM SHOVEL, PANAMA. LITHOGRAPH REPRODUCED AND PRINTED IN "NEW YORK TIMES"

seized it and did things which they thought just as good, but which we artists know are rotten, meaningless, and senseless. This, however, is true of all American art; we as a nation have nothing to say for ourselves, so we imitate the one who has.

There is in this commercial art, however, mostly no real knowledge of how to draw for rapid printing, how to draw at all, but some of the designs are very interesting, though usually ruined by the worst of lettering or type, which usually cuts right into them. The fool ad man and the fool business man are too stupid to know that a work of art, so well done and so well carried out and printed that one will want to keep it and will remember the legend beneath it, will be framed, while the same subject defaced and disfigured by type and lettering will be chucked away as only an ad. But the business man and the ad man have art by the throat; they know nothing of art, and yet they dump their notions of it on the people—a people who have suffered long, but are artless.

There are revivals in art as in other things. Today the wood cut, the oldest form of illustration, has been revived, but while in the past both in the East and West wood cutting was practiced by the greatest masters, today it is mostly tampered with by the greatest duffers. Incompetence and ignorance have taken the place of skill and knowledge and craftsmanship. Originality among duffers has momentarily ousted tradition, only the duffers don't know that their best work is but a bad imitation of what was better done centuries ago, or else they deliberately prig and steal and lie, saying they never saw what they have stolen. Many are put in

high places, when they should be fined for infringement of copyright. But critics of art in this country are still more ignorant, mostly, and we have no standards of art or morals. Let one man work out or resurrect something that is interesting—a dozen immediately copy it. We think we are an inventive, idealistic nation. We are too often cheap imitators and low-down thieves.

The wood block or process block can be printed with letter press, and therefore it is most used today. The drawing may either be drawn on or photographed on a plank of cherry or pear wood, or the cross-section of a piece of boxwood—if any decent wood has been left by the billboard men. Or it may when drawn on paper be photographed on to the wood. Linoleum and thick oilcloth can also be cut and are much used abroad. The drawing should be done in one of two ways—either made on wood or paper in firm lines sufficiently far apart not to clog up in the printing press, yet not too far, so as to allow the paper to sag and smear the design, with pen, pencil, or brush charged with india ink or some other strong black, for it must be remembered, first of all, that all lines print equally black—or should in the press—and that strength of color in cheap, rapid printing cannot be varied. The only way in which tone can be got, or different strength of color, is by making the stronger blacks with broader lines. Another method of making wood cuts is to blacken the whole face of the block and then to draw the design in white upon it with the graver or knife. You make some very clever studies in white chalk or color on brown paper in the schools—they are of no value to print from. Why don't the teachers teach you to cut

them in wood, then you might learn something practical.

Having the design on the block, the wood cutter should carefully, with a knife or a graver, cut a line in the wood on each side of the black line or mass, cutting a simple narrow line to start with, then with a chisel or gouge dig out the big white spaces on each side of it. Crosshatching should be avoided as much as possible, for, though it is easy enough to draw, the spaces between the crosshatched lines are very difficult to cut out. Therefore, not only for printing but for engraving, the lines and masses should be kept separate and as far apart as possible. When the block is blacked and the drawing made in white, the whites are gone over with a graver, thus cutting them into the block, and the cut or engraving is thus made in white lines which will print—as the lines are lowered and the black surface alone will take the ink. This is white-line engraving, the method of Bewick. The black line, cutting the surface away on either side of the lines, is the method of Dürer and the Japanese. With sufficient technical skill, white-line engraving can be done out of doors, as it is a direct method. As the black block is cut, the lines may be filled with whiting, and it will look exactly as it will print.

All American wood engravings of the more elaborate sort are done in white line on the black block, though at times both methods are employed by skilful men on the same block. The English wood engravings of the sixties were done in the older way, the black lines drawn on the block left standing. The drawings were usually done in pencil; if wash was used, the engraver had to cut it into lines.

But the great thing is to take advantage of and retain the blacks, making bold strong lines and leaving big strong forms in black.

In either case study Dürer, the Japanese, and the work of modern men like Lepère, Valloton, Nicholson, and Ricketts. Do not be led away by incompetents and *poseurs;* clumsiness is not art, and incompetence is not genius. The greatest works in any medium were done by the most skilful, the most highly trained artists, and it is as difficult for an artist to put down lines the wood cutter or engraver can follow without having to cut new ones as it is to cut or engrave. If the artist makes and cuts his own blocks, he will learn this soon enough—and if his lines are not good and an engraver does the cutting, he will learn how bad they are, and the result will be a shock to him.

The block may either be put on the press, or an electrotype or stereotype plate made from it and printed; if some of the fools who make etchings to be reproduced and printed would try to make wood blocks, they might find out how bad their work usually is. But, then, it is much easier to make a bad etching than a good wood block. For some reason a bad etching has a great fascination for ignorant people, who are gravely impressed with it.

Process mechanical engraving has relieved us, however, of the necessity of cutting or engraving designs on blocks. There is no question that the wood with its grain, and the linoleum with its soft material, give a quality, a depth and richness to the line and mass that the hard metal plate will not yield. Note, in any good Japanese print, how the grain of the wood is taken advantage of, sometimes making a pattern and aiding the design.

The metal plate is utterly unsympathetic in printing, but most responsive to any line.

Drawings in line, like wood cuts, can now be made with any sort of a point, lead pencil, brush, pen, lithographic chalk, crayon, charcoal; if they are to be reproduced in line the artist must work on his sheet of paper with the same care as in making a drawing for wood cutting. He can crosshatch, but for our modern rapid printing all the lines must be open and all black. He may, however, use a rough or grained paper, and this will break up the lines and give a grey effect to them. But he will find, save in the better magazines, and even there the printing has degenerated, he will often get blacks when he wants greys and greys where there should be blacks, owing to poor ink and careless, unionized printing.

But the most certain method is to use smooth white paper and strong black ink. There are also tinted ruled papers which may be scratched into half-tones and then lights. The drawing should be not only carefully thought out, but carefully worked out.

Phil May made elaborate pencil drawings before he inked them in, and then often laid a piece of thin transfer paper on the pen drawing and redrew it, leaving out unnecessary lines and strengthening others, and continuing this till he got by repeated work the fresh, spontaneous quality he wanted.

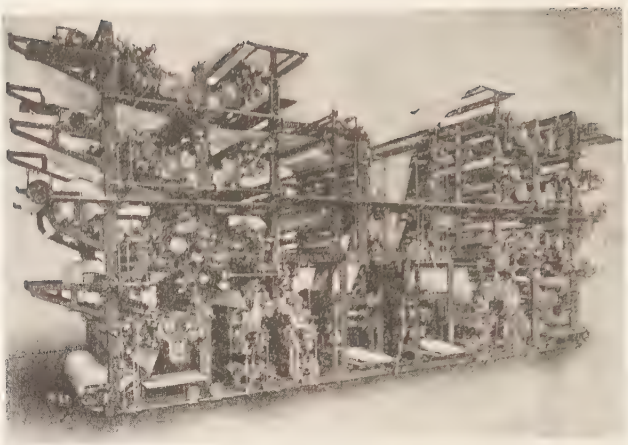
Forain's drawings are not knocked off. He is a big enough artist to know that freshness and spontaneity are the results of long and hard work. Here such elementary facts are not known, and geniuses who come today and go before tomorrow knock off masterpieces which are the delight of the cultured.

So far as I have seen him work, Beardsley never made a pencil drawing, but put a few lines on his paper and started in with a pen. Abbey and Charles Keene greyed and diluted their lines, but to get the proper effect on the pages all their grey lines have to be gone over with a graver, or roulette, by the engraver, for if they are not, they will print perfectly black. I began by making elaborate pencil drawings and inking lines over and around them. This was the method of Rico and Vierge, the right method. Colored inks, too, should be avoided, as the camera is no respecter of color, and beautiful blue inks may disappear completely, and rich reds turn pot black.

The same is true of lead pencil, which from its shine and greyness is bad for reproduction. Charcoal, crayon, and lithographic chalk are much better for line drawings, as they are dead black and any shine or glitter in the drawing may photograph badly.

There is, however, a method of reproducing drawings which are grey, or shiny, or smeared, and incompetents take refuge in these defects, but if a line drawing has any of these defects or qualities, it must be reproduced by "half-tone" and not direct-line process. By this method almost anything can be reproduced and very wonderfully reproduced, too, but this method cannot be satisfactorily used for cheap and rapid printing, and also it is twice as expensive as the direct-line process. It might be well again to explain both; the illustrator must understand them and their requirements. The line drawing is photographed on to a sensitized copper or zinc plate, where it appears in black, usually reduced in size. This ability to reduce or enlarge the drawing and also to reverse it for printing

PAGE 110 F. WALTER TAYLOR: CHARCOAL PORTRAIT



PAGE 113 MODERN MULTIPLE HOE PRINTING PRESS

is one of the aids, the most important one we have, from photography. The photographic print on the metal plate is then washed, the photographic film disappears, save the lines of the drawing, or all the blank spaces are got rid of in some of the endless patented fashions. The plate (usually a number of them) is put in an acid bath, and the exposed part of the plate is bitten away. It is then taken out, looked over, heated, when the ink runs down the sides of the lines and protects them, and the biting is continued until the design stands up from the acid-lowered plate. Large spaces are dug out by gouges and machines called "routers." When bitten the plate is mounted on a wood block the height of the type and is ready to print from. This is the theory of mechanical line engraving.

In engraving wash drawings or paintings, the wood engraver cuts parallel lines or series of dots through the washes or tones, thus breaking them up into a printing surface, as the screen does mechanically. In printing, blacks can be reduced and greys strengthened either by cutting the face of the block down or by pulling proofs, cutting them up, and putting the cut-out blacks over or under the block on the press. This gives increased pressure in the press and increases the color where it is wanted. This is known as underlaying or overlaying. But today it is almost useless for the artist to look to the printer to help him—he must make his drawing as nearly the way he wants it to print as he can, and take no chances.

By the second method, which is used for all other drawings, in fact for reproducing everything not in line or not pure black, the drawing is photographed through very finely ruled screens,

containing some hundreds of lines to the square inch. This is done to break up tones or to prevent greys from printing black. An oil painting could not be reproduced by the line process, but can by this. The lines in the ruled screens tell as whites on the darks of the design and as blacks on the light portions. They can easily be seen by magnifying any reproduction of a painting or photograph printed in a book or paper. When the design is photographed on to the metal plate, it is bitten or etched more or less in the same way as a line block. This work can now be done in as few hours as the old men spent weeks in engraving on wood. Whites may be etched out by this method as in the line process, or dug out by engravers.

The screen has been a great blessing and a great curse to illustration. By its use paintings can be reproduced and any sort of drawing; consequently a tribe of money grubbers have arisen who can't draw, can't paint, but they have formed a combine, and the screen and the artless editor are altogether responsible for the utter downfall of American illustration. For a while editors believed they could drive artists out of the magazines by photography. People got sick of it. But they have standardized and sterilized artists in a fashion to delight a prohibitionist. Some day—and there are signs—illustration may revive, but today it is rotten in America, like the country and the artless people. This sort of popular person has debauched the country. He knows nothing of art, or engraving, or printing. Cash is his only aim, ideal, ambition. I believe he gains it.

Drawings, however, may be intelligently prepared for the half-tone process in wash or oil, but

by either one the screen deadens, lowers, flattens them, even with the greatest care in photography and etching—and the printing press usually ruins what is left. The drawings should be made in black and white monochrome—in water color charcoal grey is excellent—in oil each artist has his own scheme. Some use gouache and tinted paper, or body color. There is no rule and no certain result, save that color is bad. They are reproduced without any etching out or engraving out of whites, or hammering up blacks. The art editor thinks a black should be like shoe polish and a white like a shirt front used to be. The only way to get the proper effect is to leave the flat screen dots all over the block; this simply lowers the tone, which the art editor doesn't like, so he digs a hole in the block to get an effect and prints it in yellow or green, and the photo-engraver scratches a corner and planes off the side, and the printer souses it in ink, and these and many other things account for the artlessness of the American art paper.

No amount of reproduction, no method will make bad paintings into good illustrations, and it is with bad art most of bad journalism reeks. The editors and the public neither know nor care how the unsalable painting flaunts as an illustration, the delight of the vulgar herd. It is ridiculous to say color can be reproduced by the present mechanical methods. How can a painting, which has no pure red or blue or yellow in it, be copied by the use of raw reds, blues, and yellows? The engraver and printer must use the colors the artist used, and the artist must know what colors to use, what colors will reproduce and print. Both must study this in a technical school. As a proof of the

success of the three-color method, let the photo-engraver try to reproduce a piece of undrawn-on grey paper by this process.

Color can be reproduced and printed only as the Japanese have used it in their color prints—by drawing the design in flat tones as a mosaic, as all good color printers have done, printing the colors one after another, side by side—that is the only way, the way good work alone can be done. Three-color processes, in which red, yellow, and blue blocks are used to get effects by superposition and secondary or other color combinations, are very wonderful, but they are not art; but in a nation of canned musicians and margarine-eaters cold-stored, three-colored art is bound to be popular—with all but artists, and what do they amount to?

To make color prints, as many blocks must be cut as there are colors. The artist must mix the colors himself and put them on one by one, colors that will print. This method can be employed for rapid printing. It is the only right one. The three-color scheme can be seen on the cover of any magazine, each more artless than the other. The artist must be prepared to have meaningless, artless tints of blue, brown, or green stuck over his drawings by artless editors and printers, the drawings cut in half and put on two pages facing each other, bits cut clean off—in fact there is no end to the barbarities, vulgarities, and inanities the art editor will perpetrate on an artist's design after it has left his hands.

With proper technical schools, national schools, we would get skilled workmen, men and women too, who understand the printing art. We would then again take the place we have lost as the leading

nation in the world of graphic arts, a proud place we once held. It is the duty of this Institute to give you students a chance, and it would pay artistically and financially.

OLD HAND PRESS FOR
PRINTING WOOD CUTS

PAGE 150 A. BOSSE: ETCHERS AT WORK. ETCHING

THE GRAPHIC ARTS ETCHING

THE ETCHERS THIRD LECTURE TUESDAY APRIL 13 1920

LAST week I tried to talk to you about Illustration, and this week I want to take up the subject of Etching. Both are forms of Graphic Art, and after Illustration, Etching is the next older form. I told you last week that Illustration dates back to the very earliest ages. Etching, however, as we know it, is a much later product, and begins with the Middle Ages.

The earliest forms of etchings were prints made from designs by goldsmiths, silversmiths, and other metal workers, as a record for themselves, or in order to show to their clients patterns and designs. These designs were mostly for sword hilts and other decorative work in metal and were made by drawing the lines on the surface of a metal plate through an acid-resisting varnish, or cutting them directly into the metal with a graver, of which I showed you the

form in the first lecture, rubbing into the sunken lines black paint, placing on the surface of the metal decorated a piece of paper, and rubbing it on the back, in the same way that the Japanese today make their wood cuts, by rubbing. The ink came out of the lines upon the paper which was rubbed. The lines were filled with black enamel later. This form of work was known as Niello. Casts are also said to have been made and printed from. There was no intention on the part of these craftsmen to make prints, but they did make prints despite themselves, and it occurred to artists that this method might be used for engraving or etching flat surfaces of metal by multiplying these rubbings. It would be easy to trace this, if I had the time, but it has been done in a previous course by Mr. Carrington, *Etching and Engraving*, who discussed the old work. But if I want to talk about modern work, there is so much to talk about that I can refer to only the most notable work that was done in the past and to only the most notable work in the present. Yet among the artists of the past were men whose work we have never surpassed. The greatest were Dürer and Rembrandt. Whistler, however, has surpassed Rembrandt as an etcher. Dürer lives as an engraver.

Dürer's engravings in metal have never been approached in modern times, by modern artists. He made but few etchings, and those etchings were done, not on copper, but on iron. Why, I do not know, or what sort of acid he used to bite them. The only thing of any importance is that he used the same tools to make these etchings as he did for his metal engravings—the same tools we use.

That is, all of this work was evidently, from the form and the shape of the line, drawn with a graver—drawn very lightly. First he covered the whole face of his plate with an acid-resisting varnish and drew through that varnish with a graver, and not with an etching point, as in this "Great Cannon." I am certain he made the lines with a graver lightly on the metal. Anyone who has had any experience can tell that they look like engraver's lines and not like etcher's lines.

But instead of doing as the etcher does in order to get strength and depth and perspective, biting these lines for various lengths of time, the faintest lines bitten only a few minutes, the stronger ones several minutes more, and the deep dark ones for many minutes longer, it is perfectly evident that all the biting was done at once, because they are of different width, but the same depth—different-sized tools were used. The blacks are made by putting the lines closer together and not by deeper biting. If you will compare a metal-engraved portrait by Dürer—and there are many of them in the print collection—with an etched portrait by Rembrandt, you will see what I mean. It is almost impossible to tell you or explain the difference any more than I have done. Though in the engraving the line is firm and sharp, in the etching it is ragged and varies in firmness. You have to feel these things. But the great thing about this "Cannon" by Dürer (Page 139) is the amazing way in which he has got the light and shade and expressed the different qualities of surface and the different objects in the composition in simple, pure, open line.

Look at the ground around the "Cannon." Those of you who remember the design I showed

you by the British artist, Sir John Millais, must see that he got his idea for that little illustration to *The Parables* from studying the stony foreground of Dürer's "Cannon" done three hundred years before. And what could be finer than the drawing of the "Cannon," unless the drawing of the landscape—the whole is a masterpiece. It was done on iron. Steel was not used until the beginning of the last century.

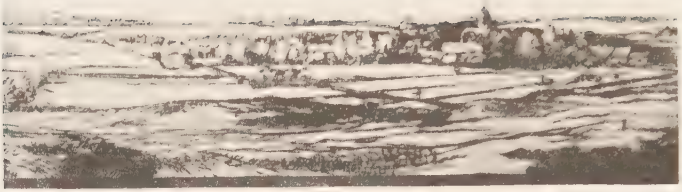
I am not going to say anything more about metal engraving, only call attention to the work by Mantegna and also by Nanteuil.

Later the art fell into the hands of commercial engravers, who were not artists at all. They were patient plodders. They killed the art. And nothing has been done in steel engraving, except for commercial work, for twenty or thirty years. The last man who practiced it in this country was Alden Weir. He did one plate which was really a delightful and charming example of metal engraving. Metal engraving is virtually dead now, just as wood engraving as an art for reproducing is dead. Government and bank note work is engraved on steel, and, if the designs were only as artistic as they are elaborate, would be amazing; but our government has no use for artists.

It was not until after Dürer that the art of etching really came to perfection, and although etching has been practiced ever since, there are only two supreme etchers who have lived in this world. One of them was Rembrandt and the other was James McNeill Whistler, and the latter was the greater etcher.

This print by Rembrandt was not only, at the time it was made, a very extraordinary etching, but

PAGE 137 ALBRECHT DÜRER: THE CANNON. ETCHING OR ENGRAVING; THE METHOD IS UNCERTAIN



PAGE 141 REMBRANDT: THE GOLD WEIGHER'S FIELD

it still is, and is an example of another form of art. Rembrandt was the first man who found that work was picturesque, and that his father's mill and the people who lived in the house by the mill were worth etching. Before that artists had never condescended to tell any stories about the life around them for their own sake; but Rembrandt was one of the first who did not regret that the houses and dykes of Holland were not in Greece, and that the Jews of the Amsterdam ghetto were not Romans of Trastevere and wore togas. He found that beauty was all about him. He was the first artist to see the picturesqueness of Holland.

Rembrandt made a number—some twenty or thirty—of landscape etchings. Most of them are greatly praised for I don't know what, except perhaps for their being as bad as anything that was ever done in landscape. On the other hand, he made a few of the most perfect etchings of landscape that have ever been made.

No artist since—although this was done in fifteen hundred something or other—has ever surpassed that tiny plate of the "Gold Weigher's Field" (Page 140). It is only a few inches long, and yet in that space you have the whole of the flat Dutch country, the lay of the land, the dykes and ditches, the great stretch of country to the little village, the shady woods and away off the line of the sea; done with the fewest of lines, and every one of those lines means something and could not be left out. If any of those lines were left out the plate would not be complete. That is the proof of a great etching. Just like the drawing of the "Mad Dog" by Caldecott, where you cannot leave out a line without ruining it, so with this etching, a single line left out would spoil

the design, and a single line added would be one too many. This use of expressive, vital, necessary line is the characteristic of great etching and great etchers.

Rembrandt made other and quite different landscape etchings. This is one I think I can call the most notorious, "The Three Trees." The trees are rottenly done, and so is the foreground. The bit of middle distance is exquisite. The composition is wonderfully arranged; and as for the sky, that is one of the most amusing things. Some authorities on the art of etching say that rain is coming on, and others that it is going off. You can take your choice. I say that the clouds are very beautifully drawn, but what they are doing I don't know; I don't know what the storm is doing, whether it is coming or going.

There is a very curious thing about this plate, and that is those perpendicularly ruled lines for rain. Now in all Japanese prints the same lines are used for rain, and I wonder more and more whether Rembrandt gave the idea to the Japanese—whether some of those Dutch merchants who made their way out to the East carried this print and were the means of giving this idea to the Japanese—or whether Rembrandt got his idea from the Japanese, from the prints which the merchants may have brought back. There they are, in both Eastern and Western art. I do not think any of the learned experts have ever referred to this before. They usually do not refer to the things that are characteristic and worth referring to.

One of the other amazing plates that Rembrandt did was the "Six Bridge." This, we are told, is one of the best of his etchings; it is one of the worst. I would defy you to tell me on which side of that

canal those trees are growing, or what kind of trees they are, or what is the matter with that boat. The bridge is not so badly done, and there is a little bit of beautiful work in the distance; but just because an old master did some great plates is no reason why we should fall down and worship all, as all the authorities do except myself—I suppose I am not an authority. I am often told I am not by those who are not. But I refuse to accept this as good work.

There is a story about this plate. The story is intended to show the time it takes to do an etching of this sort, or a better one. I do not believe that Rembrandt took any longer over that wonderful "Gold Weigher's Field" than he did to make this mess—if he did make it. He was said to have been dining with his friend, the Burgomaster Six, and the bottle of schnapps or beer or mustard or something had been forgotten, and it was sent for. While the servant was on the way for it Rembrandt pulled a grounded plate out of his pocket and produced this masterpiece on it. It would have been a great deal better if the story had been carried on a little further, saying that he bit it, anyway that they were dining in the gutter, as the perspective shows, and that he carried a printing press around with him and printed it while they waited. It is out of such nonsense that art history is manufactured.

On the other hand, the "Beggars at the Door of a House" is one of those figure studies by Rembrandt as marvelous in design as the "Gold Weigher's Field." In this he has rendered the beggars at the door in both a dramatic and a realistic fashion. It is one of the masterpieces of Dutch art, and one of the greatest etchings of the sort that has ever been

done; yet it is scarce ranked above the drivel of his imitating successors by the authorities.

The two great etchers were Whistler and Rembrandt, and this I am going to prove to you by putting these two plates on the same slide. If there is one vital thing about etching, it is that the artist must not try to imitate somebody else, but be himself, and do his work in his own way, or he is not an etcher—and most artists are not, though the world is filled with etchers today. Still I do not think that since Rembrandt there have been a half-dozen great ones added to the list. Whistler was one, and a greater than Rembrandt in his use of vital meaning line.

You can see these two plates were done from virtually the same spot—at least the artists were seated on the same spot, Rembrandt looking toward Amsterdam, Whistler sitting with his back to Rembrandt etching the country toward Zaandam three hundred years later. What I want to point out to you is the totally different way that the two men treat landscape. Rembrandt works right up to the foreground, and also elaborates the town in the distance in great detail. Whistler always believed that the spectator's attention should be concentrated on the important spot and the rest of the subject ignored. The windmills in his subject are the important things and those are all he has drawn, only suggesting that boat tied up to the edge of the canal. But what those plates do show, as well as the next one, is the different way in which different artists work. Unless there is this individuality in treatment there is no art. Whistler's handling is far more direct and simple than Rembrandt's; he gets more with fewer lines.

PAGE 147 REMBRANDT: THE MOTHER WHISTLER: ANNIE HADEN

ETCHING PLATES PLACED TOGETHER TO SHOW DIFFERENCE OF HANDLING EMPLOYED BY THE TWO ARTISTS

PAGE 147 REMBRANDT: CHRIST PRESENTED TO THE PEOPLE. ETCHING

Here is another comparative slide (Page 145). This is Rembrandt's amazing portrait of his mother, one of the finest things that was ever done in etching. Alongside of it is Whistler's study of his niece, little Annie Haden. What I want to point out is that one man did his work in his way, and so did the other. There is no attempt to imitate. Both are trying to do the people they saw, one his mother, and one his niece, and each made an immortal portrait in his own way. Both of these men were great draftsmen, great craftsmen, and that is the first necessity before you can become a great etcher. How many of you students try to do this? You try to copy your instructor—or someone who is the fashion of the moment—not to study good work—and be yourselves. If you don't do this you will not do anything. Most of you won't.

Rembrandt cared more for color, Whistler more for line, but etching is a line process and Whistler is the greater master of line.

The "Christ Presented to the People" (Page 146) is a glorious plate. I know of nothing more magnificent in manufactured etching than this plate. Almost every one of those figures is an outline, and yet every one of those lines is full of expression. Still it is not spontaneous etching. The composition is perfectly arranged, and so is the drawing and the biting; and to bite a large plate of that sort, as Rembrandt has done, is an amazingly difficult thing. He carried this plate on through several states. He did not bother his head, or trouble himself at all, nor did any of his contemporaries, about local color and costume. Instead of the building being in Jerusalem, it is a building probably in Amsterdam; and the people, many of them Jews,

are dressed in the clothes they wore in the ghetto of Amsterdam. Few artists at that time, when they went in for historical compositon, cared anything about local color or historical accuracy. What they cared about was to do their work as well as they could, building it up from the material they had; and Rembrandt did this supremely well. Still the highest form of etching is sketching—and not making potboilers.

Here is another, "The Three Crosses." In this plate there is more attempt at costume. This is one of Rembrandt's most magnificent plates which are compositions, religious prints made for dealers—made to sell. Whistler said that "the big plate is an offense." He never intended, I know, to refer in that statement to Rembrandt, because he admired Rembrandt enormously; he only referred to the large machines with which, if you walk down Michigan Avenue, you can see that all the large shops are decorated, plain or in colors. And that kind of work is rotten work; therefore it is popular, and the kind of thing some of you would like to do—because it pays.

But the sort of thing that Rembrandt did, like "The Three Crosses," "The Raising of Lazarus" (if he did it), and a number of other plates, were religious prints which were published and sold just as sporting prints are sold today; only then religion rather than golf was believed in and practiced. There is no one among us today who amounts to anything who is doing anything in the way of religious art; but, as I say, religion was then a popular subject, and these prints were religious propaganda and were perfect examples of what could be done by etching. Yet they are not spontaneous, but built up with the greatest thought, care, and elaboration.

I want you to understand that "The Gold Weigher's Field" and "The Mother" are vital spontaneous expressions and "The Three Crosses" an elaborate composition, carried out by Rembrandt perfectly, but to a degree that is not the real aim of etching. Its aim is doing as Van Dyck did in this portrait (Page 151) quite personally. Here you see every line and dot has been done by the etcher with a meaning. There is not a superfluous stroke about it, that is, as far as Van Dyck carried it. After the plate was taken up by professional etchers and engravers who put in costume and background and carried the composition down to the title at the bottom, they finished it, and finished it in every way as an etching.

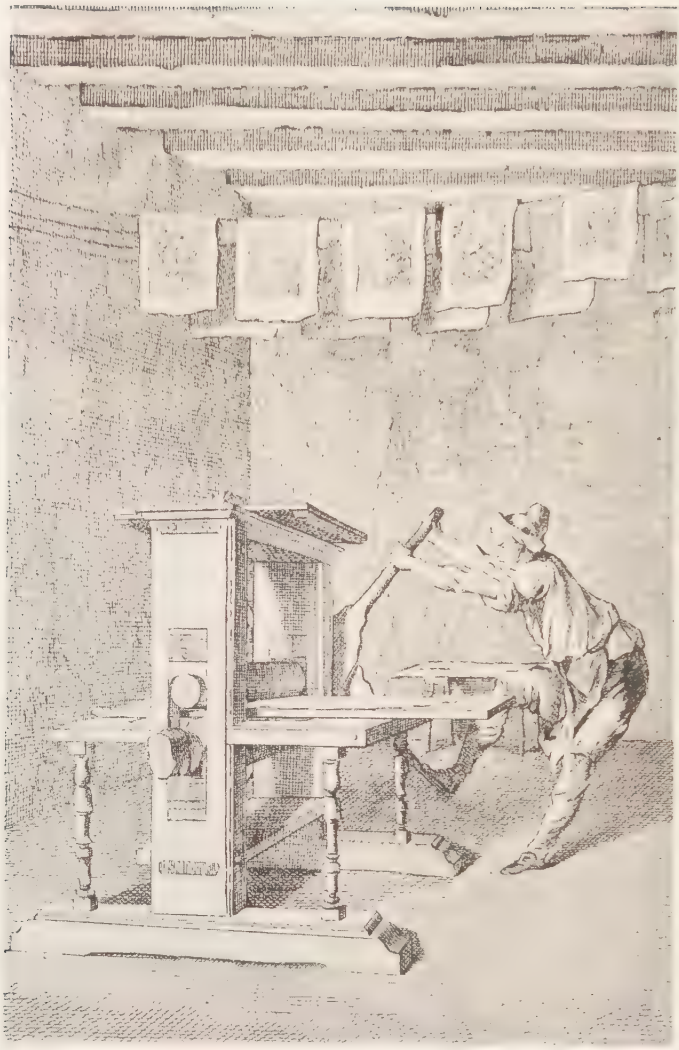
Another man who also practiced etching very extensively a little later was Callot, and in his "Horrors of War" he too was a preacher and propagandist; he made a series of remarkable plates. They are upstairs in the print room, and you should look at them and study them. His work is much more direct and simple than Rembrandt's. Callot was a most prolific person. He published many plates besides these "Horrors of War," and they have come down to us as a notable example of contemporary facts. What have we of the horrors of the World War in etching? The printing of Callot's plates is poor because he seems to have published them very cheaply. Probably he did not do the printing himself. Then there was Hollar too who preserved much the Puritans destroyed in architecture and costume. Who is really doing anything to preserve our customs destroyed by hypocrites, prohibitionists, and business men?

Another man who lived a little later in England is Hogarth. This plate is finished with the graver. Hogarth began his plates, which he carried on during all his life, nearly always as etchings. But they were all finished by himself and his pupils with the graver. He probably etched the subjects first, as Van Dyck did, his pupils and assistants finishing the published plates.

I want to show you just for a minute—though we are going to have a press here, on Thursday, I hope, and try to do some work—how the men in the past made etchings. These plates (Pages 135, 151, and 152) were taken from Abraham Bosse's Book on Etching. You see the etcher biting his plate which has been grounded, and drawn upon; and acid pouring over it runs down it and into the trough below—just as the photo-engraver works today. The other man is drawing under a screen. The screen is used in order to diffuse the light and let him see the lines in the copper plate. This youngster is heating something, probably making etching ground. There is a man biting a plate, at the back of the print, just as we do today. These plates from Bosse show us more of technical methods than any number of descriptions. In the old days, instead of using a bath as we do now, a border of wax was put around the edges of the plate after the drawing was made on it, and this wax border retained the acid which was poured on the plate. It was a delightful method, I know, because I have tried it once or twice myself, and the beauty of it is that the acid leaked out under the wax, and it got on your clothes, and burned your fingers; nevertheless here in these prints is the proof of the way the old men bit their plates.

PAGE 150 A. BOSSE: ETCHERS AT WORK. ETCHING

PAGE 149 A. VAN DYCK: FRANCISCUS SNYDERS. ETCHING



PAGE 150 A. BOSSE: THE PRINTER AT WORK. ETCHING. FROM AN OLD PRINT

This man is smoking the plate. The plate has been grounded, the varnish put on it. I will show you how it is done on Thursday. I don't know how they did it; probably they dabbed the varnish on. The plate is hung up, or it was in those days—we don't do it now—and a lighted taper was placed underneath it, and the lighted taper smoked the plate and turned it a beautiful black, and that was done in order that they might see the lines in the glittering copper through the black surface.

Here is a man heating the plate exactly as it is done today. What makes these old prints so very interesting is that you learn how the work was done, although many of the methods have been abandoned.

Here is a printer at work, at the press. This shows the sort of printing press which was used three or four hundred years ago. It was all made of wood. Now they are all made of metal, as you will see on Thursday. The plate is put on the bed of the press; you can see the edge of it. The dampened paper is laid on it. Then this plank of wood covered with blankets is pulled through, under great pressure between the rollers, the man with all his might pulling that plank through from one side of the press to the other, and when that is done the ink has come out of the lines on to the paper. This he lifts up, and the print is on it. Up at the top the prints are being dried. Apparently the old printers did not use blankets. They used an upper plank instead. These are prints hung up to dry—that is no longer done. This is a very interesting plate, because it shows the form of press on which Dürer and Rembrandt probably printed their proofs.

This form of press was used in Venice, and almost a similar one was used by Dürer when he made his

visit there, and certainly by numbers of the old Italian engravers, and certainly also by Whistler and Duveneck. I worked on it myself. The performance of that press was magnificent. The bed used to move about halfway, and then it dropped about a half an inch, and if you didn't get out of the way quickly enough you got the bed on your toes.

Another etcher of the eighteenth century was Piranese. Although most of his prints were finished with the graver, still in a series of etchings of "The Prisons of Rome" he made a set of designs, very unrealistic, but very dramatic, and justly regarded as of great importance today.

Chodowiecki, a Pole, was another workman who illustrated a vast number of French books during the eighteenth century, with a great deal of grace and the greatest perfection of craftsmanship.

And then came Thomas Rowlandson (Page 155). He etched his designs. You can see the lines through the tint upon them. Those lines were first etched, and then on the top of them a ground called aquatint was placed, which gives a tone to the whole plate, and adds richness in printing. Aquatint was put on because the etcher wanted a tone on his plate and could not trust the printer to get it. Goya also made many aquatints (Page 156). His design is better than his technique. In the early part of the last century many very fine designs were made in aquatint. The art is to a certain extent lost today, but it is being revived.

I showed you some of Blake's wood blocks last week. Here is one of his etchings from the *Book of Job*, one of the most impressive things ever done in art. And this design is pure etching. I am told it is engraved. But on the outside of the design he

PAGE 154 T. ROWLANDSON: THE SOFA. AQUATINT

PAGE 158 J. M. W. TURNER: THE JUNCTION OF THE SEVERN AND THE WYE. FROM "LIBER STUDIORUM"

PAGE 154 F. GOYA: THE WITCHES. FROM "THE CAPRICES." AQUATINT AND LINES

drew a border, in some sort of acid-resisting varnish, and then when he got his design drawn through the varnish, and this part drawn with liquid acid-resisting varnish, he put the whole plate in the acid bath and bit the two parts together, one in intaglio, the other in relief, and both printed on the same press—at the same time. It was a very interesting and very successful method, and certain artists have resurrected it.

No one, I think, has used lines in a more effective way than Blake. After this was done nearly all of these designs were colored by hand. When they were being made Blake could scarcely sell them, but now they are the treasures and the prizes of all collectors who can obtain them. Cotman did much in etching of various sorts. Here is one in soft ground. I will show you how it is done later. It is a charming method of work, and one which was practiced with the greatest success by the early English engravers.

David Lucas and other Englishmen reproduced many artists' work in mezzotint. The whole of the plate is covered with a roughened surface, which is obtained by taking a tool, the face of which is covered with a multitude of small teeth, and rocking it violently forward and backward in twenty or thirty directions, and this roughened plate of copper or steel is rocked until it will hold the ink, as a solid black mass, which is dabbed or rolled on it.

When the rocking has been done, the engraver or artist—very few artists have tried it because although it looks very easy it is a very tedious process—with a scraper and a burnisher draws the whole design by scraping and burnishing in the roughened surface; the design is made entirely by

scraping down the ridges and humps and roughnesses that cover the face of the plate; and finally when it is scraped down the design is done, thus leaving more or less of the roughened surface which holds the ink placed on it. This is mezzotint.

Turner for his *Liber Studiorum* (Page 155) did the etching for many of the plates himself; a few of them he also scraped. Here is an etching by him which shows the first stage (Page 159). Look how every line means something. It shows that he was a great etcher, because he drew lines which have meaning. The etching was a guide for the mezzotinter. Through the roughened surface he could see Turner's lines, and with the etched lines as a guide he scraped the subject out.

This is the finished plate. You can see in various places in the tree trunks, and in the distance, where the etched line has been used, and you can see in the extreme dark where the roughened ground has been left untouched. That is what the French call the *manière noire*, the black method, the manner of drawing with the scraper from dark to light.

One man who has to come in as an etcher, although we may not think it, is John Ruskin. Think what you will of Ruskin as a writer, and I must say that I think of him with very mingled feelings, except as a master of beautiful English—there is no question that John Ruskin was an artist, a man who, if he had not written, would live by his art. This is being recognized. In this plate is great feeling for form expressed by simple line in the drawing of that sheer cliff. It is a masterpiece. And the British are for the first time honoring Ruskin, because this winter there was, in the Royal Academy, a show of his work which

PAGE 158 J. M. W. TURNER: ST. CATHERINE'S HILL. ETCHING FOR MEZZOTINT TO SHOW THE WORK

PAGE 158 J. M. W. TURNER: ST. CATHERINE'S HILL. MEZZOTINT

PAGE 161 C. MERYON: THE COLLEGE HENRI QUATRE. ETCHING

PAGE 165 F. SEYMOUR HADEN: SUNSET IN IRELAND. DRY POINT

produced a profound sensation on people who did not know he could draw. He was a very master of drawing. There is one thing these plates prove, and that is that one must be a master of drawing, and draw better than anyone else if one wants to be an etcher. Don't worry about drawing—if you cannot draw you cannot etch, and if you cannot draw you cannot do anything; yet an etcher must know how to bite and print his plates.

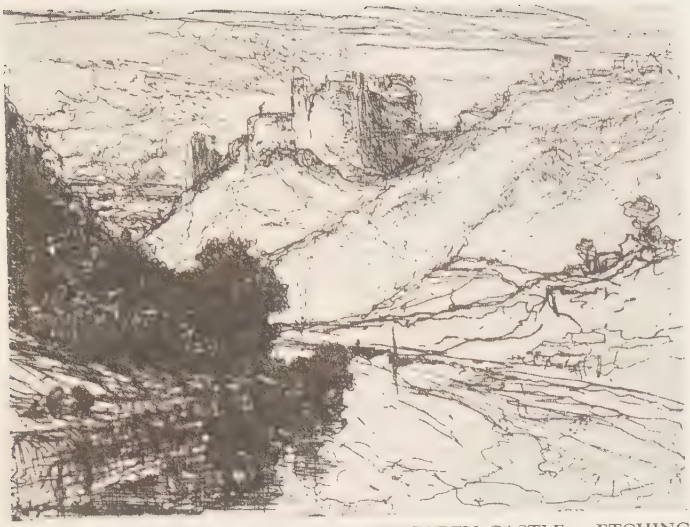
Another man who was a great etcher, and is now a great success, was Meryon (Page 160). He did many plates of old Paris in remarkable fashion. But he was in modern times, as Rembrandt had been before him, a commercial proposition, not for himself, though Rembrandt was, but for people who exploited his works.

This plate, "The Stryge," is very popular; it is almost sacred. It has been a great commercial success, and so has a great financial value. It has no value excepting that; it gives no idea of old Paris—there isn't any idea in it at all. But it is regarded as something holy, yet there is no merit about it, nothing really of any value, except the drawing of that crouching figure. In "The Stryge," the height above the city is not given, the houses are not well drawn, the church tower is pathetic. There is everything which is bad about it; and to crown all Meryon imitated Rembrandt's trick of putting an oval on a square-edged plate. Meryon had little idea of art and less of decoration. He said he was no etcher, and he told the truth about himself in this plate.

But every once in a while Meryon did a marvelous plate. "The Morgue" is one of the greatest of his designs. This is quite another story. Though much of its fame depends on the story at the bottom.

"The College Henri Quatre" (Page 160), however, is certainly the most wonderful study of a great city etched by an artist. The way in which he has got the feeling of Paris, receding into the distance, street beyond street, and house beyond house, is something that no one before had ever done, not even Dürer, and no one since has ever attempted or probably ever will succeed in doing. Yet it is no portrait of Paris—but it is Paris—all through it there is that curious thing about him, that spirit of madness. And in some of the early states the town is about half drawn, and in the distance are cliffs and mountains and farther away is the sea, and any number of strange creatures are in it, proving that he, when he was doing his most wonderful work, was insane. Yet there is nothing in the whole of etching to touch the distance he put in the city. And although Hamerton said that this was all done from nature, the mere fact that he had in one state a background of sea proves how little Hamerton knew what he was talking about on that occasion. Meryon's "San Francisco" is another of his incredible views of cities, and no one knows whether he ever saw San Francisco.

This is a form of etching that was greatly practiced in England—an illustration from Pickwick. It doesn't matter who made it. It might have been made by Cruikshank, or by any one of a number of others; it was done by Seymour. But that is the kind of thing that your grandfathers were brought up on, the few of them that came from England, and that is the sort of thing that was taken seriously. That England ever survived it is something I cannot understand, but everybody took that sort of stuff seriously, instead of Hogarth. How the country



PAGE 165 F. SEYMOUR HADEN: KILGAREN CASTLE. ETCHING

PAGE 166 F. SEYMOUR HADEN: HANDS ETCHING. ETCHING

PAGE 167 F. DUVENECK: THE RIALTO. ETCHING

PAGE 169 J. A. McN. WHISTLER: BLACK LION WHARF. ETCHING

came to degenerate to this extent I do not know. That thing is pretty nearly as bad as the comics we love—no, not so bad by any means.

But England got over this attack and produced a fine etcher in Seymour Haden (Page 160), and here is one of his dry points which I think is one of the most beautiful renderings of landscape that was ever made. Dry point, I might explain to you, is not bitten line. The design is drawn entirely with a very heavy and very sharp steel point; there is no biting; it is pure drawing, with the point. In order to get fine lines, those delicate ones in the sky, and those in the foreground, the point is held almost vertical. And if you want to get that richness you see in the foreground you have to go over the lines several times with great force, digging into the copper. But by holding the point at an oblique angle you make a furrow as a plow does, throwing up the copper on one side; the more obliquely you hold the point the more you throw up the metal—and it takes a certain amount of muscle to do that—the more the metal is thrown up the more ink sticks to it, and that is what gives the richness. In steel and copper engravings either that ridge of metal is cut off, or the graver itself cuts it off; but in dry point it is left and called burr, and everything is done to increase its richness and depth. I know of no landscape which is more beautiful or richer, and which gives a greater effect of a deep, dense wood than "The Sunset in Ireland" by Haden.

Here is one of his etched studies (Page 163). This was done from nature. All that I am going to show you were. It is a study of one of the Welsh castles, in which every line means something,

as Rembrandt's lines mostly did. This is one of Haden's smallest and one of his best plates. Haden was a worshiper of Rembrandt, but in his best plates he was himself.

Here is another, "The Breaking Up of the Agamemnon," a composition which he made, he said himself, when on his way to a dinner at Greenwich. He was all dressed up in his evening clothes and going down to dinner on a steamboat, when he happened to see this great composition, and he got off the boat, pulled the copper plate out of his coat-tail pocket, did the etching, and lost his dinner. I happened to be lunching in his house when he told this story, and another Scammon lecturer, Mr. Hopkinson Smith, was also there, and when Haden told the story Smith said to him, "If you can carry a copper plate large enough to do that on in the pocket of your evening clothes, what sized copper plates do you carry along in your ordinary clothes' pockets?"

I don't believe Haden's story. I don't believe the plate was done from nature—that upsets my theory—not at all; it looks as though it was—Rembrandt's does not. Haden's line means something—Rembrandt's does not. This plate shows how Haden held his point. He worked with this huge instrument which I wouldn't want to have anything to do with; and those are the gravers and dry points which he used. But the etching is really a fine thing as well as a valuable record of the way he worked. It is the title-page of a collection of proofs of his etchings published in Paris about 1860.

Now I want to talk to you about the plate. It is fine because each line means something. Look

at the stunning way in which he has drawn the movement of the Thames water. And those of you who know the Thames know how well it has been done, how perfectly it has been expressed. There is no tone on the drawing of that old hulk against the light; it is all in outline, just as Whistler did in those Blue and White Porcelain Pots that I showed you the other day. And look at the color of the setting sun. You feel the color of the sunset, you feel the whole thing, yet it is all in line; but each line means something and is drawn with meaning and bitten with skill. If you do not feel it, you will never be able to understand etching. Most of you won't.

Another man who followed Haden and preceded Whistler in Venice was Duveneck (Page 164), and he made in the seventies a series of plates of Venice, and also some in Florence. At the time these etchings were stupidly or maliciously supposed by people who ought to know better—and one was Seymour Haden—to have been done by Whistler, who had been sent to Venice to etch the city.

This was an entirely new view of Venice, and all of the plates made by Duveneck in Venice were new in viewpoint and handling, and you should study them all. Some of them are upstairs, and a complete collection is in the Cincinnati Museum. He is one of the least known of our artists in America today, but he will live in the future when some of our high-priced geniuses are forgotten.

And now I come to the biggest man of all. And whether you like it or not it is a fact. And that man was James A. McNeill Whistler. He was trained, and trained thoroughly and carefully and accurately, and he was trained in the best schools that we have in the United States of America as art schools;

one was West Point, the other the Coast Survey. He learned to draw at West Point, to etch in the Coast Survey. And while he was at Washington he drew the coast line and profile of a map, but wanted to see what would happen if he drew and bit certain faces and figures on the copper. He found out, and he also found out that he was not to waste government copper, and in order to make sure that he wouldn't waste any of it in the future they sacked him. But he remembered what he had learned, and he went over to Paris, and produced in a short time, with the knowledge he had gained, a number of fine plates in Alsace and Paris, when he was about twenty years of age. These are "The French Set."

If you remember, and keep it in your head, Rembrandt's "Mill," here you will see is a somewhat similar subject, and yet there is far more go, far more life, and far more color in that than Rembrandt ever got. In this he went far beyond the Dutchman, and so he did in a number of the other early etchings of "The French Set."

This is a curious one, "Street in Saverne," because it shows that from his earliest years Whistler loved the beauty of the night, and began by trying to etch it. And yet that is done in a very simple fashion. Some of the lines are meaningless, some are scribbled and some of them are very mechanical, but he got what he wanted, and he rapidly learned how to etch with the fewest, the most expressive lines.

This study of a wine glass is done frankly and purely in rivalry of Rembrandt's "Shell." Both are examples of splendid technique.

One of the most exquisite of his early prints is only the study of a small boy, the son of his landlord

in Paris. It shows perfectly what I have been trying to tell you; every one of those exquisitely drawn lines means something. There is a body inside of that little blouse, and how wonderfully the hair is drawn, the turned-up nose, the little hand, and the bit of sofa on which the boy is sitting, and the whole thing is done with the fewest of lines, and lines which express everything—if you cannot see this it is useless to look at etchings.

Here is another study of his niece (Page 172), whom I showed you in that slide in comparison with Rembrandt, known as "Annie Haden in the Big Hat." I think it is about a foot high, and it enlarges to the size of one of his full-length portraits, and is just as stunning as they are. He really felt, and all these men whose work I have shown cared as much about their etchings as they cared for their illustrations, or for their paintings, or any other form of art. It is in dry point, the greater part of it. See the wonderful way in which he has rendered that 1860 costume, and that hat which is supposed to be so ugly is really a triumph of art.

After leaving Paris and coming over to England in the late 50's and early 60's he did a series of plates of the lower Thames, and this "Black Lion Wharf" is one of them (Page 164). If you will look carefully you will see that the etching of each of those houses shows the material of which it is built, and the different times at which the different houses were built. The wood and the brick and the stone and the whitewash are all there. There is color, yet all is in line. And the barges are perfectly done. Look at the drawing of the details, and the various mooring arrangements on the side of this barge,

done with the greatest simplicity, and yet every single line tells, as every single line does in that longshoreman who is sitting in the barge.

That is one of the great triumphs of Whistler's early life. He said he did not like it, but I do not agree with him.

He told me that it was all done out of doors, and the drawing of the background took him three weeks. He never did anything except from nature. He never was able to work except when he was working from nature, or a model.

Jo was his model for the various "White Girls," the little and the large ones. And she had evidently been posing for him, and this day she was tired out. For though he was the most kindly and gracious of men, and most considerate to women, save when they were posing, he thought then of nothing but his work. And Jo, evidently tired out after an hour or so of standing, threw herself in a chair, and there she rested. But he never stopped; he found a plate and made his dry point of her. Every change was a new subject for him, and this print of Jo, "Weary," is the most exquisite portrait that was ever done in dry point in this world (Page 171). Everybody is beginning now to believe me about this, and it is the truth. You can find nothing to touch this plate for sheer beauty by any artist in any age.

Whistler went, after various experiences, to Venice, and if you can remember that plate by Duveneck you can see how differently the two men treated the same subject. Yet at the time they both lived very close together in the same city and in the same part of it—and they both etched the Riva, but how differently! If I could have the

PAGE 170 J. A. McN. WHISTLER: WEARY. DRY POINT

PAGE 169 J. A. McN. WHISTLER: ANNIE HADEN IN THE BIG HAT. ETCHED AND DRY POINT LINE

two artists' plates and put them together, you would see how utterly different the two men's technique was even when treating the same subjects. Look at the work he has put in this Riva, the figures, the architecture, the gondolas. It takes a mighty lot of drawing to do a thing like that, but there is a mighty lot more left out. No one in modern times could do it as well. Probably that is one reason why some of you don't want to draw—it is rather difficult to draw—yet without drawing you can do nothing—not even paint.

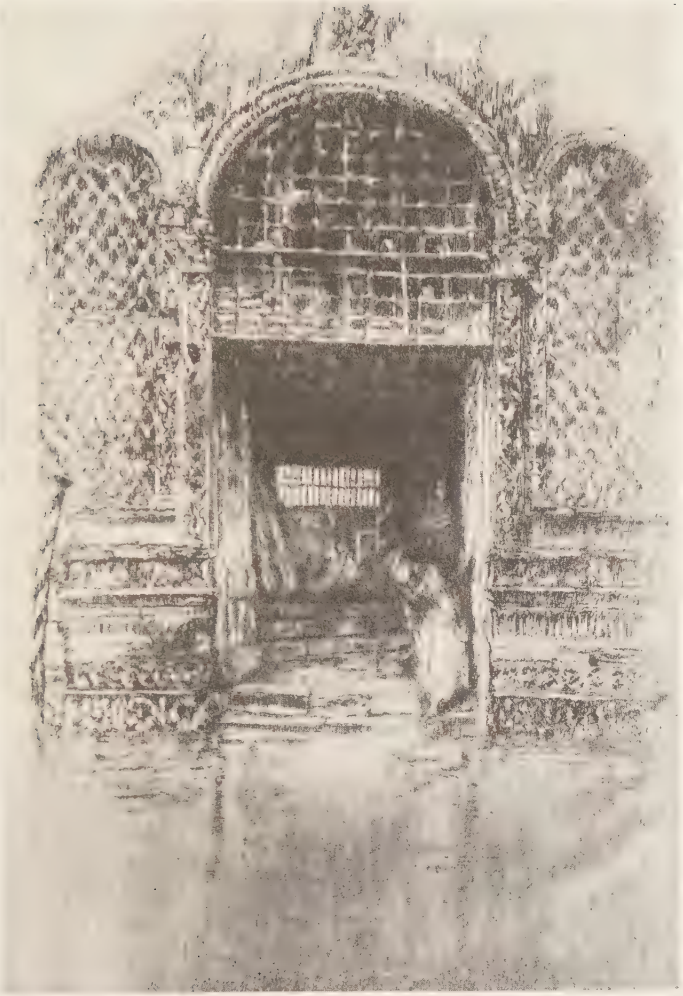
Here is another exquisite Venetian study made on one of the tiny canals. And there is one thing about it that those of you who have studied and know something about composition—which is another valuable thing you will have to learn some day—will see in this plate, and that is just exactly what John Ruskin preached all through his *Elements of Drawing*, another valuable book that you ought to read, for it will give you some new ideas, and that is, the way in which the lines of the design of "The Bridge" lead right straight up to what Whistler considered the most important thing in the composition, the distant group of trees, and one line leads right up one side, the other up the other side, in the same way. Did you ever think how valuable lines are to convey meaning and arrangement? That is marvelous composition, because it is not obvious, it doesn't hit you in the face, but there it is. It is all thought out, and every one of those lines in that plate is thought out and thought about before it is even put on the plate. That is what Whistler meant by saying an artist's work is "finished from the beginning," not what fools thought he meant.

And there was another curious thing about his work, the drawing of it. He always said that he began with the most important part. Probably he began in this plate with the bridge, and drew it in completely, and then filled in the rest of the design as he wanted it, but he got the bridge right, for in etching you cannot add to your plates as you can to paper or canvas; you must place things right. He always called it the Japanese method of drawing. I don't know where he got the idea, or whether the Japanese had any such idea, but he always said he believed it was the way they worked. If you asked a Jap he would tell you it was so—but whether Hiroshige worked that way he would not know.

Whistler said he couldn't draw architecture. I don't know who could have drawn this Venetian house better.

This old doorway has been rendered by him in a fashion which no one has ever approached, though many have since tried. Look at the difference between the old water-worn stone work at the bottom, and the rusty iron work above, and the way the whole design has been made into a decoration, with his monogram of "The Butterfly" crowning all, harmonizing with the rest of the work. The richness and depth of shadow within that doorway is almost unbelievable. And in several of the prints the water is altogether painted, so strengthening and giving accent and support to the architecture.

Many people will tell you that the etcher should never use printing ink as paint as it has been used to get richness of effect, as in "The Doorway" (Page 175). The etcher should do whatever he wants, if he can do it, both in biting and printing and it is a



PAGE 174 J. A. McN. WHISTLER: THE DOORWAY, VENICE. ETCHING, SHOWING PRINTING IN TONE

PAGE 178 WHISTLER AT HIS PRESS

mighty difficult thing to do what he wants. Whistler did paint with ink on this plate, and brought forth the result he wanted. It is true that later he did not paint with ink. This design is painted on the plate. That is, reinforced by ink, and that is what gives the richness. When these plates were made no one wanted them; now they are among the most beautiful proofs, it is said, that have been made of Venetian subjects. They are not one bit better than when they were made.

In his later work he depended less on printing. This is one of the plates of the "Old Guild Houses in Brussels." It is said in one of the Lives of Whistler that it is really an expression of "the bones of architecture." There is not a single, superfluous line in it, not a single line could be left out. Yet it is altogether different from anything he did before, and altogether different from anything he did after. He never repeated himself; he carried on.

Here is one of the latest London plates drawn with this same simplicity of line, and yet the handling is different. Further progress he was always making.

And so again in this plate made in Amsterdam. You have a certain amount of that same richness of printing of the Venice series, but I know you have never seen more wonderful drawing. The texture of everything in this plate has been rendered in the most truthful fashion by the most skilful craftsman of all time. This is one of his great plates, a plate that Rembrandt never came near. Of course you can say that Whistler made no great religious subjects, and Rembrandt never did any subjects of this kind. But all Whistler's work is etching—some of Rembrandt's is manufacturing.

Here he stands beside his printing-press (Page 176). He always wanted someone by him when he worked and was most kind in allowing one to see how he worked, and in helping one and teaching one everything he knew. There were no secrets with Whistler. As he once said when somebody told him, "There is no secret in that," "Yes," he said, "the secret is in doing it." And that is where the secret comes in, in all art. And as he said too of printing, if you don't know how you made a good proof and can't do it again what was the use of doing it at all?

Another etcher was Felix Bracquemond. He was a contemporary of Whistler, and did some great plates. His studies of birds are fine, like this "Raven." But his greatest work was done in portraiture, in copying other men's work, though his own portrait (Page 214) and that of the De Goncourts rival Dürer in their way.

Another extremely interesting artist was Félicien Rops, who used aquatint and dry point in an extraordinary manner. He is a very great technician. You want to look up his works, of which there are reproductions in Ryerson Library.

Mary Cassatt (Page 179) is another notable figure, and this is a dry point of a "Mother and Child" which belongs to the Museum. Many of her plates were intended to be printed in color. The color was slight, just washed on, more like a Japanese print. She worked the color in by hand, or had some very clever printer assist her in doing it. Some of her prints are most charming, not only in line, but in color. Most color in etching is abominable. "Black ink on white paper was good enough for Rembrandt; it ought to be good enough for you," Whistler said.

PAGE 178 MARY CASSATT: MOTHER AND CHILD. DRY POINT PRINTED IN COLOR

PAGE 181 F. BUHOT: COUNTRY NEIGHBORS. ETCHING

PAGE 181 A. ZORN: PORTRAIT OF RENAN. ETCHING

Félix Buhot (Page 180) worked in every conceivable sort of way. There are all sorts of technical methods employed in this extraordinary plate only two or three inches long, but size has nothing to do with a masterpiece. Buhot was a man who found beauty in commonplace things. I think he was the first man to see that the hansom cab was worth drawing, and a rainy day in London an inspiration, and he drew it and etched it, I am sure, out of doors. You couldn't get that freshness without doing it out of doors, and all great etchings have been done from nature.

There are a series of Embarkations or Landings at Dover and Folkestone, nearly always under rain. The studies of the Houses of Parliament, and the French cafés—all these are very notable and worth looking up. You ought to look up all Buhot's work, because if you don't you won't know what not to do, or what has been done, and you may think yourselves original when you are not.

Zorn (Page 180) is a very big artist, but a very bad etcher. That, of course, is rank treason. The drawing of Renan's face is perfectly stunning, the etching of his coat perfectly vile, but Zorn is a painter, not an etcher. He seems not content to render Renan's face as Rembrandt did his mother, and Whistler his niece, but he has to show that Renan wore a black coat, and he does so with a characterless line, a painter's line, not an etcher's line. What difference does it make what kind of coat he wore, or what color it was, whether black or white? If Zorn was a big enough etcher he would have shown in three lines that it was black. But he has to prove it black by drawing a multitude of lines. There is no real feeling for line in that coat at all. The face is

full of it. And this is the case in almost all of Zorn's work. Those coats and things, instead of being drawn as Whistler would have done them, or Rembrandt would have done them, with the fewest and most expressive lines, are fumbled and elaborated, and scribbled on. The only person who can appreciate useless line is the collector, and he pays an awful lot of money for his appreciation.

Here is "The Toast." Look at that oily, smiling face of that professor wonderfully done. But look at the awful coat again. There is absolutely no drawing in line in it at all. That old crumpled-up hand is most amazing, and so is the glass in it. But he could have put, as Rembrandt did, the whole feeling in it, without putting a single one of those meaningless lines in. And that is where Zorn is altogether wrong, and if any of you follow Zorn in this way you will go wrong, and ten times more wrong, because there is nobody in this room who can follow him.

Lepère (Page 183) was on the other hand an etcher, and in his study of Amiens cathedral he has made a great etching. He died a few months ago. He was a very skilful craftsman. And here is one of the old markets near Notre Dame, with the effect of morning sunlight supremely rendered. He treated landscape in an equally interesting fashion.

I wish I had the time to show you more. I will show you the work of one big man, and that is Louis Legrand (Page 195). In these soft ground or aquatint plates he has produced some amazing studies of peasant life which you ought to see. There are any number of those, different from the work of Mary Cassatt, and equally interesting. Each keeps its character, and without character there can be no art.

PAGE 182 A. LEPÈRE. CATHÉDRALE D'AMIENS, JOUR D'INVENTAIRE. ETCHING

PAGE 185 MUIRHEAD BONE: ORVIETO. ETCHING

PAGE 185 FRANK BRANGWYN: ETCHING

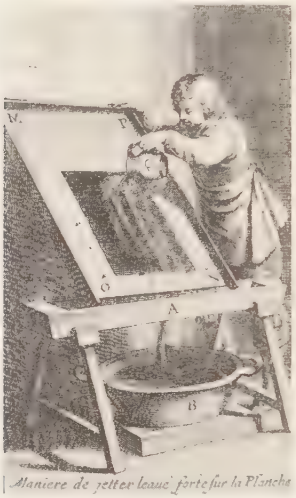
Max Klinger has treated etching in his own fashion and in the German fashion, though not in Dürer's fashion, but very well.

Bone is one of the best-known Englishmen, and his studies of architecture and of scaffolding, and his war work done in England made him deservedly a great reputation. And I have placed these two prints together. Here is a slide which shows you exactly what I have been talking to you about, and that is that the etcher should make every one of his lines mean something. Every one of those lines in Bone's plate in that cliff (Page 184) and the landing has a meaning. In this big plate (Page 184) I cannot find a single line that means anything, any more than Zorn's lines. Both Zorn and Brangwyn are painters, neither is an etcher. Brangwyn ought to paint and let etching alone. He tries to do everything, and sometimes comes down. He does come down very much in his big etchings. The smaller Brangwyn's work, the better it is. His subjects are well chosen and impressively carried out.

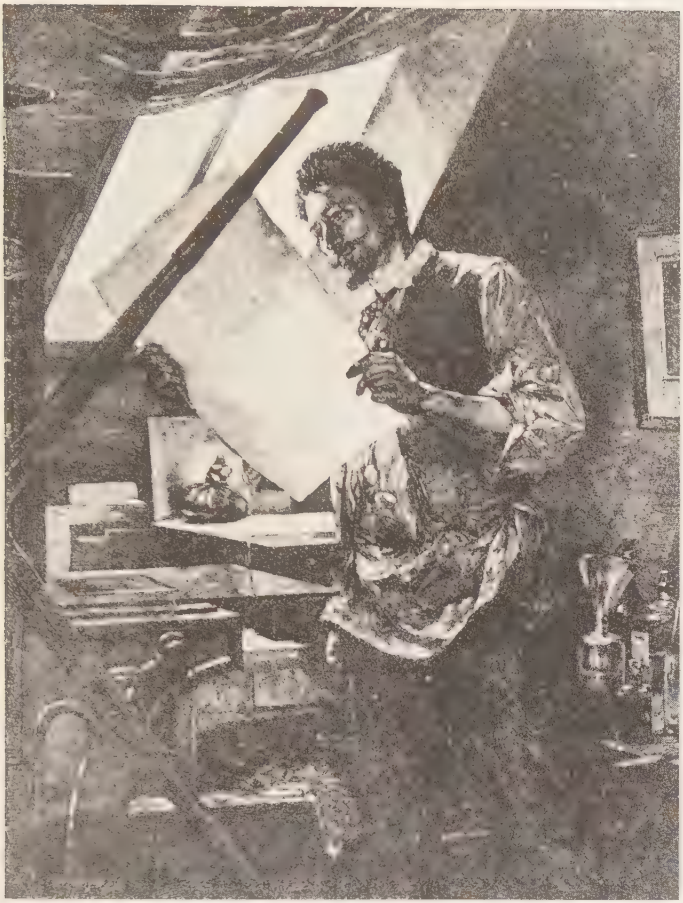
Here is a little one which is very good indeed, the study of the building of the ship. In his subjects of work, of labor, Brangwyn has made deservedly a great success, but he has no feeling, mostly, for line, like Zorn. But he has a great feeling for composition; in most of his paintings and drawings but only in a few of his etchings, he has done very good work indeed. Brangwyn is like Zorn—a painter's etcher, and not an etcher's etcher.

I want to show you a modern printer's shop (Page 286, and that will end this talk. That is the place that I have to work in, and I love it. It is one of the most amazing shops in America, in my own town, in Philadelphia. There is the sort of press that I

work on. And in the other talk that I am going to give I can show you what making etchings means. It means working like a slave. But it is a delightful slavery, and it is work that I love, and I love to do the whole thing, from one end to the other. If you do not care for that, if you take up etching and do not find the biting as fascinating as the drawing, and the printing as enthralling as the biting, you are not an etcher and you never will be.



THE ETCHER



MATHEY: PORTRAIT OF FÉLICIEN ROPS

THE GRAPHIC ARTS ETCHING

THE METHODS FOURTH LECTURE THURSDAY APRIL 15 1920

LAST Tuesday I showed you a number of prints which are universally admitted to be the greatest that have ever been made, because in studying any art what you want to study is good

work only. And that is what I have been showing you. But in etching there is another and an equally important part, and that is the making of the plate. Unless the artist does the whole of this, unless he not only makes the design on the plate, but etches it—that is, bites it into the metal, and then prints it—he is not an etcher, he is only a duffer, a shirker, because if he does not do all the work it usually is because he cannot do it, and so he hires someone else to do it for him. We know that from the time of Rembrandt artists have always done all the work of etching, although I don't believe that Rembrandt ever tried, as I am going to do, to make a plate before an audience. Well, I am going to try to do it, and I have two intelligent people to help me. And even the three of us may fail to produce it; at any rate we are going to have a go at it. And I am also afraid that you will not be able to see a good many of the different operations.

The first thing which it is necessary to have in order to make an etching is either a zinc or a copper plate. Copper has usually been used, from the beginning. Certain other metals have been tried. As I told you the other day, Dürer made etchings upon iron, but from Rembrandt's time copper has been almost universally used.

We have been trying, within the last few years, to get some substitute for copper, and zinc has been greatly employed for two reasons: One, because it is very much lighter than copper, and, if you are going to make plates out of doors, you will find that copper plates are very cumbersome things to carry about, and that zinc is very much lighter; and the other reason is that it is cheaper.

But zinc is not so sensitive, not so sympathetic as copper, and being softer it will not yield so many impressions. The chief reason it is used is because of its lightness, and another reason is that when the plate is prepared for etching, and the ground is put on as I shall do in a minute or two, you see your lines light, white in the black ground, and when the copper is grounded you see them a golden hue in the black surface. But seeing your lines in glittering light on the black instead of in black on a white ground, you quickly get used to.

Another metal that has been tried is aluminium, and if we could only find something which would bite it with certainty it would be used altogether, but no method of biting aluminium, with any degree of certainty, has been found. A plate of aluminium is almost as light as a sheet of paper.

But zinc is good to practice on, excepting for dry point, which I will tell you about in a minute, because zinc is very soft and brittle, and any lines drawn on it with sharp points, and then run through the press, are liable to break or wear, so that most etchers use copper. The zinc is employed more for large and bold designs, like these by Brangwyn. These are drawn with very strong lines, and the plates are very thick and heavy, almost as heavy as copper. But he uses zinc, as I think most etchers do, because it is cheaper, and for bold, big work it is reliable. Only bigness and boldness are not desirable.

The first thing in etching is to heat the plate; take a wooden-handled vise, and to protect the corner of the copper plate from being scratched by the bite of the vise you put a piece of paper between the jaws, screw up the vise, and put the

plate on the heater. It will take a minute or two to heat up.

On the plate, as soon as it gets hot, you rub this ball of ground, which is made, I believe, of tallow and varnish and black—I do not really know what it is made of, for the makers will not tell me. And they won't tell you, either. This ground which I use is made by Weber of Philadelphia and is better than you can make. The etching ground is an acid-resisting varnish, which must have three or four necessary qualities; the most important is that it should resist the acid. The varnish also must be put on so thinly that you can draw through it in any direction with a needle point, a small instrument made of steel. This is the sort that is mostly used. It is a double-ended point, and the drawing is made with either one or the other end through the coating of varnish, which I will now try to put on. I rub the varnish on the edges of the heated plate as you see.

The plate has to be fairly well heated before the varnish will melt. Electric heaters are not very good. The proper one is made like this, but has gas jets under it, and they give a much stronger and more uniform heat, and you can regulate such a heater better than you can this electric burner.

The varnish is put on around the edges in a layer, and as soon as the plate gets hot it melts very easily, forming a layer of varnish after one gets it all around. I never tried one of these electric things before, and I am certain I never will again. The etcher, to judge if the plate is hot enough, either touches it with the varnish to see if it will melt, or he spits on it, and if the saliva jumps about, it is right.

Then you take a roller of this sort, a rubber roller fitted into a wooden handle, and by rolling the ground off of the edges and all over the plate you will in a very few minutes get the entire plate coated with it in a very thin layer, and that surface of varnish is what you draw through, and it protects the parts of the plates which are not drawn on. The roller worked in this fashion makes the ground stick very firmly to the zinc or copper plate. The more you roll it the thinner and the more smooth the surface becomes. It requires only a very thin surface to protect it, but you must cover it all over, for wherever there is a hole in the varnish the acid will bite in and make a hole in the plate, usually where you do not want it.

As soon as the ground is on, you take half a dozen wax tapers, light them, and holding the plate varnished side down, so that the flame from the tapers does not touch it, you pass the tapers back and forth under the plate in every direction, and if you do not burn your fingers, as you will frequently, you get a perfectly black surface all over it in a minute or two. This is quite black enough now. It is not absolutely black. You want it only so dark that you can see the lines when you come to draw on it. If you burn it you have to wash it off with turpentine and ground the plate again.

This is the method of commencing to make a bitten plate. But there are a number of other methods which can be employed. One which is much used is dry point. That is, instead of grounding the plate as I have done some artists smoke it as I did. Then you take another point, a stronger and a heavier one, a point which is very hard and

heavy, and make your drawing, as these drawings have been made, digging into the ungrounded copper or zinc plate. Copper is better for making dry points, because the zinc is so soft and so brittle that when you come to run it through the press the ridges of metal I told you about the other day, which are thrown up on one side of the line as you draw on the plate, will break off. If you want a fine or grey line you hold the point vertically, but if you want a very deep or black line you put your point down at an angle to the plate, and use more muscle. And when you get it down in that direction, more metal is thrown up at the side of the line. This ridge of metal is called burr, and it is this ridge of metal which holds the ink on the plate in printing and gives color to dry point.

There are many other methods of work. You may make what is known as a soft ground etching. You take this ground, and melt it and mix it with about the same quantity of tallow. It will never become hard, and you put that in the same way on the face of the plate with the roller and smoke it, and when the plate becomes cool you put a sheet of rather rough drawing paper on the face of it, and draw upon the paper, which should be put firmly down upon the plate; you can fasten it down by wetting it, and pasting it on the back of the plate as one stretches paper for watercolor, and then draw with a pencil or with hard charcoal or chalk on the paper. The point penetrates the soft ground underneath it, and when you take the paper off you lift off the ground too and you will find your drawing in line on the metal plate shining and glittering, and then it is bitten just as we will bite this one in a minute.

PAGE 192 M. LALANNE: SOFT GROUND ETCHINGS

F. ROPS: THE DEVIL OVER PARIS. ETCHING

PAGE 182 LOUIS LEGRAND: MATERNITY. AQUATINT

M. LALANNE: PLATE PRINTED CLEAN (LEFT); WIPED WITH A TINT (RIGHT). ETCHING

Aquatint is another method. And I discovered in this institution only the other day, in the hands of Mr. Philbrick, a new method of making an aquatint. The old fashion was like this: Take the clean copper plate and either pour resin dissolved in alcohol over it, and then slightly heat it, when the resin forms itself into little granulated dots, and the spaces between those can be bitten, or else put the plate in an airtight box, which has a door in the front, and then put in that box a quantity of powdered resin. In the box also is a fan which is made to revolve, and the dust which rises is allowed to settle on the plate, which is, when heated, put in through the door, and when it cools the resin settles in granulated points, on the face of the plate.

After that ground had been laid in that way—or by Mr. Philbrick's method which is simpler, for he takes an eye-dropper and places some powdered resin on the edge of one plate and blows it with the dropper on to the other, and then heats it; when the plate is cool the ground sticks to it; this is the simplest method that I have ever seen, and I hope it will be known in the future as the Philbrick method—then the artist paints the subject upon the plate. That is, he commences, and instead of painting his darks, he paints out on this grounded copper plate the high-lights and bites it a minute or two to get a tone over it, and bring out the lights, and then paints the design around the lights, putting the plate into a bath of acid and allowing it to bite. The painting is done with acid-resisting varnish called liquid ground. The first tones are bitten for two or three minutes, and then when you want a greater dark you paint out more of the design, then put it in the bath again, biting a few minutes

more, and then paint darker parts out with varnish, going on in this way until you get to your extreme dark. It is a very difficult process for most of us moderns.

But there must have been a method which has been completely lost, for at the beginning of the last century there were a large number of very wonderful aquatints made and published very cheaply, and very widely, in England and in France, and there must be some practical method of doing the work which we now find so very difficult, for the artists of that day did not seem to have had any trouble at all. It may be that this new method is the right one; I am going to try it. The other day I saw the results which were very interesting.

Another method which somewhat resembles aquatint is sandpaper ground, and that is very much more simple, and easier to manage, and you get stronger and richer effects. You take a grounded copper plate and lay it on the bed of the press, then lay over it a sheet of sand or emery paper, and run sandpaper and plate three or four times through the press. It is grounded in the ordinary way, just as I grounded that plate; and after you run it three or four times through the press, the sandpaper that is placed on top of it breaks the ground into little granulations, and then you paint with liquid ground your design on the surface, biting your darks more and more strongly into the plate. It is rather difficult to manage, because you must know exactly what you are about, and one of the things in all etching is that you have to be sure of what you are trying to do; you cannot experiment much with the plate; you hit or miss. Some people have endless patience, but I never heard of an

etcher who had any. You either get things or you don't, and you usually don't. I speak from a lifetime of experience of failures.

Whistler dreaded this work, because when he had made his beautiful drawing on the plate there was a chance of spoiling it in the biting or in the printing, but the artist who does not carry out every part of the work is not an etcher, and he never will be.

I should have grounded this plate about twenty-four hours ago and let it stand until now to let the varnish cool and harden. I don't know at all what will happen working on it so soon. You take the point and draw with it as you would draw on any other surface. There are only three or four things to remember, and those you must remember. The drawing you make on the plate is not the print you are going to get off the printing-press. The drawing is not the end of etching, it is the beginning, and in order to get lines to print properly, you have to think of the way in which you put them down. The first thing you have to remember is that as these lines are bitten into the plate they enlarge; therefore, if you wish to make a plate which has a very delicate distance, you can draw those lines which produce the distance very closely together, but if you leave them exposed to the acid for more than two or three minutes they will probably, even with the best of grounds, all bite together into a dirty black mess, or rather, a grey mess, for the ink on the surface, as I will show you in a few minutes, is of no account; it is the ink which goes into the lines themselves that prints. And the lines have a curious way of acting.

As the acid bites into the copper (nitric acid, I use), eating down, it bites into V's of this sort,

and if you have enough of them, too close together, you will find that your surface instead of showing delicate lines, will be a dirty mass, the acid having bitten the lines all together. Therefore the deeper you want your lines bitten, the farther you must place them apart.

That is the most important thing to remember, about drawing on copper or any other metal plates, that the print is made from the ink which is contained in the lines, the bitten lines, not the ink which is on the surface, as in wood engravings; it is the ink in the hollows of the lines which the press forces out.

I cannot really pretend to make a drawing in the time I have, but this young lady can make one while I am going on with preparing plates. It is so difficult that I don't want to make a mess out of it.

After the drawing has been made, and it should all be made with the same point, it is immersed in a bath of nitric or some other acid, and the finest lines are allowed to bite only for a minute or two, then varnish is painted on these light lines, the middle distance is bitten twice as long, and then that is painted out with the stopping-out varnish, and the foreground, or the part of the design which is to be the strongest is left in the bath the longest.

There are other ways of biting plates. One, which is a very interesting method, is to commence by drawing the darks first, and biting them—the darks of the design. You allow them to bite until you think they are bitten enough, then draw the lighter lines over them. The whole is a matter of guess-work backed by experience, for the biting of a copper plate not only varies with each day, but

sometimes with each hour in a day. Not only that, but you may get differences in the composition of the copper and the zinc. In fact, no etcher is ever sure of any plate that he is doing, and the longer he works, the less sure he becomes.

After you have drawn the black lines in this negative method, you draw over them the middle distance, and put the plate in the bath again, and then finally draw in the lightest of all. All bite together, but the darks will have bitten three times as long and the middle tone twice as long as the lights. This gives relief and perspective; before the plate is bitten it looks perfectly flat.

This is a very simple method of biting, theoretically, but as a matter of fact you have to work out a scheme on every single bit of your design, because you cannot change it at all. It is difficult to make corrections in the plates, unless you do not mind drudgery. You can rub out with charcoal and scrape out and burnish out lines, but it is a long and tedious process, and there is only one artist who has done much in this way, and that is Rembrandt, but Rembrandt had a school, and I am sure he employed the pupils to do that work for him. Moderns do not have assistants usually; you see I am lucky enough this afternoon to have two.

Now I take the acid and pour it on the drawing. There is one thing about etching—it is not a clean process. And if you mind burning your clothes and staining your fingers you will never become etchers. This is not pure acid, but is mixed with an equal proportion of water, and it should be mixed the day before you use it. And if the plate is put in the bath and a little of it poured on it, it ought to bite. I say it should; I do not know whether it will or not,

because frequently it does not do anything, at least in the beginning. The varnish protects the undrawn-on parts of the design, only those parts which have been drawn on, exposed metal under the lines, will be acted on by the acid. One has to coax it about to make it bite. It is biting on the back beautifully. And now it is biting in the design. I know this because there are bubbles rising; they show the acid is at work on the metal.

This ground is so well made that you can draw in any direction through it, and yet it does not crack or break up. That is one of the most important things in a ground.

After you have bitten the plate it is necessary to dry it to see what you have done, as nearly as possible. Then if you hold it up on the level with your eye you can see the lines, in shadow in the black surface of the plate. You can imagine that the ordinary etching is not made in quite this free and easy sort of fashion. Although, as I told you, Rembrandt made that plate, the "Six Bridge," while the waiter was hunting up the mustard-pot in some remote part of the house.

I am very much afraid that this plate will be pretty much on the same character as that—not a great work of art—I do not mean the drawing, because the drawing is beautiful. You saw the assistant do it. It is now bitten enough and I did not stop out the light lines; I tilted the acid about.

The ground can be dissolved immediately by washing it off with turpentine. You see, theoretically, what a remarkably simple process this part of it is. But in the first place this ground should have been allowed to dry for at least a day, and then an hour should have been taken, at least,

for the drawing, and, as Rembrandt said about etching, you should take one hour to make the drawing, and spend one week with the stopping-out varnish, stopping out the lines that you do not want to bite. But he, instead of putting the plates into a rubber bath like this, on which the acid has no effect, made a border of wax all around them, and then poured the acid on the drawing on the plate; the border of wax kept it from running off.

The modern way is to cover the back of the plate with varnish of some sort to protect it from the acid—any kind of cheap varnish that nitric acid will not act on will do—and then to immerse the whole in the bath, biting and stopping out as I have told and shown you.

But it is very much more interesting and amusing to take a few drops of acid, as I did, pour it on the plate, and then with a feather drag the acid about. It gives a variety to the lines which you can get in no other way. The feather is also used to brush away the bubbles which form on the lines and stop the biting.

In order to print the plate, which will be the next operation, you again put it on the heater, and then go to work with the ink roller. This is one form of ink roller, but there is another and a much better one; the roller is in the middle, and there is a handle at each side of it. That is the newest form of etching ink roller.

With a roller of that sort you can leave a great mass of solid black down here in the corner, or you can leave the lightest tints. It is an American invention, and an excellent one. This one that I am using is an older form. This arrangement on the top is placed there so as to keep your hands

out of the ink. I never used a roller of this sort, and I think I am using it rather cleverly. In beginning printing it is well to rub the ink into the lines with your fingers.

When the plate is inked in this way you slide it on to this wooden box, which stands alongside, and when the plate gets too cool you slide it back again on to the heater, then taking a piece of rag, folding it up, and putting it into the palm of your hand—you will be able to do this after several years of experience—you proceed to wipe the ink off the surface of the plate and not out of the lines, and I can tell you that it is a craft that requires rather a little bit of experience. But the man, as I said, who makes an etching must care just as much about the biting and the printing as any other part of it. There is an equal amount of art in every one of the three stages of making a plate: in the drawing, in the biting, and finally in the printing.

And you may do anything in printing. Some artists maintain that an etching should be printed simply and cleanly, or almost cleanly, leaving only a slight film of ink on the surface. Others maintain that you should paint on the surface, in fact, you can paint on the plate with ink, and then by dragging it around, leaving some here and some there, you can get the most varied effects.

I do not think this plate is quite as much a work of art as I thought it was. Still it is a practical demonstration of the way I work.

Now, you can see from this—or I hope you can—that the ink has been wiped off the surface of the plate more or less, but not out of the lines, and you must keep the ink in the lines, and doing that

and yet getting it off the face of the copper is not an altogether easy affair.

When you have done this, the next thing is to prove the plate, which you do by putting it on the bed of the press. And I might as well say that this press (Page 213) has been built here by Mr. Sturgis, in Chicago, and is the most perfect printing-press I have ever seen. It is based on an English copper plate press that was manufactured in England by Haddon & Son from Sir Frank Short's design; but like most English things that are very well made, it was very cumbersome; the space which the English press takes up is twice as much as this. And there was no reason for that at all. Mr. Sturgis has designed a machine which, I believe, is going to revolutionize printing-presses in Europe, and in this country too. It seems to me it is the most excellently designed and the most excellently made press that I have come upon. There are many details about it, such as the extra press underneath for pressing prints and drying paper. That also acts as a sort of weight in the center, keeping the balance of the press perfectly.

The whole theory of the press, as you will see in a minute, is this. At the bottom is a big solid roller, on the top is a flat plank, or bed of the press, as it is called, and above is another smaller cylinder. When the plate is placed on the bed of the press and a sheet of dampened paper laid on it—you have to dampen the paper in order to get the ink to come out of the lines, to print properly—then on top of the paper three or four pieces of blotting paper are placed and the blankets on top of them, and you turn the wheel, and the plate passes between the cylinders, the blankets take the direct

pressure off, and also go into the bitten lines in the copper, and draw the ink out as the plate passes through. And here is the work of art.

In the first place there is not half enough ink in the lines—we can get a great deal more—then we can get them a great deal stronger. But this is the whole theory, and the practice too, of making etchings. It is a serious affair, and one not to be lightly trifled with. But it is interesting to be able to show you the way in which etching is done.

There are many other forms of etching; one very interesting method is to take a plain copper plate and then cover the face of it with a coating of ink, as I did before with the roller, then handing it to the eminent artist who will now proceed, by means of rags and paint brushes and anything which comes handy, especially his fingers, to make a design on it, painting from dark to light. When that design is made—and he can do it in a very few minutes; you can see how quickly he does it—it is passed through the press, and the design should come off on the paper. That is called a monotype. But that is the way in which complicated printing is done, by leaving more or less ink on the plate.

You remember those two Venetian studies by Whistler that I showed you, though they were not done so freely as Mr. Philbrick is doing it—still that is the method in which the printing by Whistler was done, by painting the design on the lines which had been etched, as this one was, on the plate. I can easily get an entirely different effect out of any of these plates in the same way, by leaving more or less ink on them.

Many people have carried monotyping to such an extent that they make monotypes in color, but

it grew out of this method of leaving a tone over the face of the plate and then wiping the design out of that. Sometimes very beautiful results have been obtained. (I ought to have someone to do the talking while I am doing this work.)

Even the folding of the ink rag is a thing that has to be mastered, because you have to get the rag folded up into a rather loose, soft pad, and in order to wipe a plate you must carry this pad in the palm of your hand. If you use your fingers you pull all the ink out of the lines, and the ability of the great printer is to coax and to wipe and to paint and drag ink on the plate with this very sensitive mass of inky rag. It requires, in order to do good work, a very great deal of practice, and there have been very few who have mastered it. Everyone admits at the present time that the greatest modern master of printing was Whistler; even professional printers have been compelled to admit that. A few years ago they said he was all wrong.

It has been said by many authorities that Rembrandt never did anything of this sort; that he wiped his plates clean. But we have no proof of that, and it may be that these prints, which were made three hundred years ago, had a tone of ink on them, and the ink which was left on the surface dried to dust, for at times when you take a print out to look at it, that tone has become dust and blows away. I have heard of this happening after a print had been put away for twenty-five years, and taken out of a drawer or portfolio where it had been kept.

There are many other things that a printer does in order to get tone after he has wiped the plate nearly dry on the surface. By one motion of his

hand he wipes the ink off the surface, and by another almost similar, but a reverse motion, he wipes it back again, but all that takes enormous practice. If you do not care for the mysteries of printing, again I can only say you will never be an etcher.

There are other ways of making these fascinating plates. One modern form of reproduction which I should like to refer to is rotogravure—which you see in the Sunday supplements. This is the application to rapid printing of etching. Drawings or prints are photographed and transferred to copper cylinders. These are etched as other copper plates, then placed on the press designed for them, ink is spread on the surface and in the lines, and then as the cylinder revolves a sharp razor blade scrapes the ink off the face of the cylinder, the ink in the lines coming out on sheets of paper as the cylinder revolves farther. This is the method by which the rotogravure sections of papers and magazines are made. It is a modern German method only half understood here—though used in most of the weekly papers.

Another scheme is that of printing plates in color. This is very popular at the present moment. Vast numbers of these color etchings are made today. Most of them the artist had no part in. They are a combination of misdirected energy and photography. You can see several of them on Michigan Boulevard this afternoon in the shop windows. I was told by one artist that he had nothing to do with them except to sign his name and draw his check. He was very successful with that latter proposition. But if you want to become an etcher there is something more to be done than signing your name and drawing a check.

Now these color operations I do not believe in, even though the artists did them all themselves, because a person who really does not care for the beauty of good black ink on good white paper is not an etcher.

There are other ways of making tones which are much used by printers.

They have a fashion, when the plate is wiped, of going over it with a trembling motion of their hand holding a rag, and producing a tint in that way—dragging the ink out of the lines slightly. This is called *retroussage*.

But after all, the etching is not dependent, or should not be dependent, on printing. If you cannot get the lines right, get good lines; if the drawing is not right and the biting is not right, no amount of printing will make a good thing out of it.

You see how beautifully this press runs. With the old-fashioned press you were forced to climb up and down on it. It was a very interesting performance. It was far better exercise than golf, and more amusing, and with more beneficial results. But all the same, I must say that it was not a press which ran as smoothly and as beautifully as this does.

On this print you can see that there is not half enough ink, but you can see that I again have left the tone all over it, and brought the strength of the design out. Or you can leave it clean and white. There is no end to the methods you can employ.

The great thing is that the etcher should not depend on printing, but he should depend on the excellence of his drawing and the accuracy of his biting, and if he has done that the printing will probably more or less take care of itself. Unless

you do care for all these different processes which go to make up an etching, I do not think you will ever become very great etchers, and the man who does not enjoy printing, and who does not enjoy biting, has the chance of enjoying only half of the work.

The hour is almost up. If you want we can print some more of these plates. There are a number here that the students have done with a great deal of care, and it might be well to try one or two of them.

The method I have shown you is a method that all artists employ both for biting and printing. It is really a very simple process, and in fact nearly all arts or crafts are simple. The only thing is to take advantage of these simple methods and to try to do your work just as well as you can. And I can tell you, in order to do it well, it will take a whole lifetime of practice.

If you want to wait I can show you some more. But the time is up, and I will try only one or two, and if any of you care to stay to see how the printing is done and what these plates look like we will go on with them. Some of them may produce much better results than we have had so far, because these were really done with some care, and we must try to print everything with the greatest care.

That is really all there is to the technique of etching and of copper-plate printing. But you want to exercise the greatest of care and not do it in this haphazard sort of fashion, though an etched plate apparently will stand a great deal of strenuous treatment.

This is a far better plate, and one that has been done with a great deal of thought for line. As I did

not make this—I never saw the plate before—I would not be surprised if I could not get anything out of it. It is not inked enough; there is not enough ink in the lines, but still it comes off pretty well, and is a rather charming design. It was done here in the school.

There is another thing about printing: The ink does not really get into the lines until after three or four proofs have been pulled, and the first proofs that one gets are rarely the best. Then after three or four have been printed you get some of the best of all, and then you have, in most cases, the horrible disappointment of seeing the design go, and it finally fades away until there is nothing left of it.

Some plates will give only a few proofs, and others will give quite a number. Any number of prints can be made by steel-facing the plate—putting a coat of steel on it, really electroplating it.

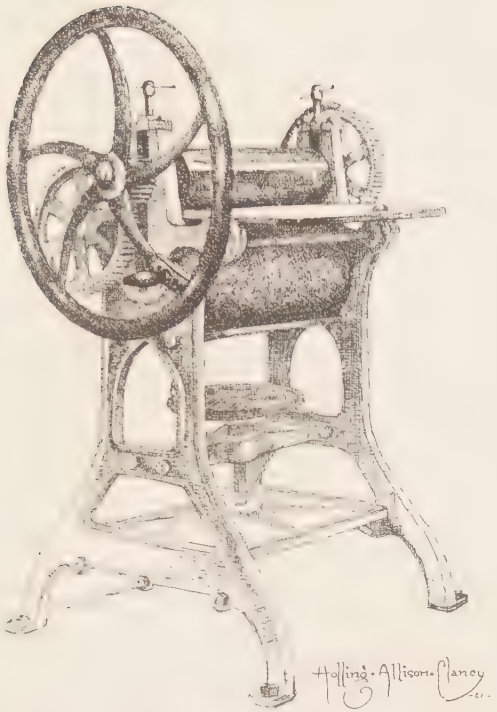
In the old days one used a machine like this. You took this pad and pounded it in the ink violently, and then you pounded the surface of the plate with it. The ink went into the lines all right, but the lines went out of the copper, and the consequence was that it was possible, except in the rarest of cases, to get only a few proofs of dry points which were worth anything.

But with this new roller you can get a large number of proofs equally good. The collector is very much disappointed with that, because from the collector's point of view rarity is the great merit of all etching. If there is only one proof, and the artist did not like that, that is the one that the collector tries to get hold of. For instance, there is a celebrated one—I think it is of a rabbit or a pig—

that Rembrandt sketched on a corner of a plate, which he did not like, and there are only two or three proofs of it known to exist, but the whole world of collectors is running around hunting for those proofs. The fact that later he drew all over the plate, and satisfied himself when he bit it, proves it from the collector's point of view to be utterly worthless. Artists differ from collectors in those things, and they both have their point of view. But what I cannot understand is this: Why a collector who wants something which is rare, does not buy original drawings, which are unique. But that is the sort of thing that collectors do not want; instead, they buy rare proofs, and they will not buy originals. Often the last state of a plate is far better than the first, though the artist may spoil it by overworking—but usually the first state, though incomplete or unsatisfactory to the artist, is the one the collector collects for its rarity.

I can tell you about a very celebrated plate that Whistler did. He told me that he was sitting on a wharf, when some gentlemen, who were of the laboring profession, and who were building a wall behind him, dropped a brick. It did not hit him, but he jumped some feet away, to avoid being hit, and as he jumped, he scratched the copper plate he was drawing on from top to bottom. I can assure you that print with the scratch on it is one of the Whistler prizes most cherished by collectors. The print that has not a scratch on it is of very little account to anyone except artists.

I cannot go into mezzotints—the beautiful *manière noire*, in which the plate, as I have said, is covered with a multitude of little points made by rocking a cradlelike instrument armed with



PAGE 205 ETCHING PRESS DESIGNED AND MADE BY MR. LEE STURGIS OF CHICAGO

Pen-and-ink sketch by pupil of Mr. Philbrick. Press used in demonstration at Mr. Pennell's lecture.

PAGE 178 P. RAJON: BRACQUEMOND, THE ETCHER

sharp teeth over the plate in every direction. The holes made in the plate hold the ink, and it will print quite solid black. And the design is drawn on the plate with scrapers and burnishers scraping and burnishing the points away, making the drawing by polishing and scraping the design on the face of the plate, drawing the design from dark to light with scrapers.

Nor can I take up steel engraving. This like wood engraving is scarcely practiced today. The steel engraver works very much in the same fashion as the wood engraver. To do good work is as difficult by one method as the other and that is one reason why so little of it is done. Steel is little used for etching or dry point. It is too hard and unsympathetic; but when large editions from copper plates are wanted, each plate has a coating, a facing of steel deposited on it by electro-plating, and any number of prints can be pulled.

There is another charm about etching, too, and that is the collecting of old paper. You cannot imagine anything more delightful than the chase up and down in old rag shops which used to exist before the war, and in old book shops, hunting for old paper. A paper which is old does take ink very much better than modern paper. Possibly we are making equally good paper today, but a paper that has the beautiful tone of time on it, and the beautiful watermarks that some of those old makers put in it, is something which, when you can find it, you want to treasure.

I have found paper in all the old Italian towns and many of the French towns, and also in Holland. The French, Italian, and Dutch papers were perfectly beautiful and wonderfully made, and they are

delightful to print on. Often you can draw on them, but we etchers do not like to see them wasted for that purpose, so we preserve all the paper that we can find. But I am afraid that in the war there has been a great deal of good paper destroyed. For example, some of the modern mills north of Venice are now ruined, and any amount of paper, and not only paper, but works of art—for the making of good paper was a work of art—are gone with the towns and the people and can never be replaced.

Here is another proof I have made. There is not enough ink on that. It would probably come up, but it has not enough ink yet. The plate would have to be inked three or four times, printed three or four times, before I could get the proper strength and color out of it. And the getting of the ink right, the making of the different strengths of ink, is an art in itself, and it requires the most endless practice, and practice every time you try to print, because printing ink changes just as much as nitric acid. And every change in the weather has an effect. But it is a most fascinating art. And one of the great reasons why it is so fascinating is the uncertainty, and if you are not fascinated with that sort of thing you will never be an etcher.

We could go on, but I think the time is far past, and I do not think I will keep you any longer. Besides I have made and printed an etching. Now go and work yourselves—for if I have not interested you enough to do so, we have wasted the afternoon.

HENRI TOULOUSE-LAUTREC: THE PRINTER. LITHOGRAPH

THE GRAPHIC ARTS LITHOGRAPHY THE ARTISTS FIFTH LECTURE TUESDAY APRIL 20 1920

IN the previous lectures in which I tried to tell you something about wood cutting, engraving, and etching, I told you that those forms of the graphic arts dated back almost to the beginning of time, especially wood cutting, and that etching was invented early in the Middle Ages. I said the evolution of those forms of art took long, and the methods were, in the case of wood engraving, obscure, but of etching we know considerably more.

This afternoon I want to tell you about lithography. And of lithography we know everything about its invention, why it was invented, who invented it, how the work was done. And that inventor was such a great man in his own way that nothing at all has been discovered since his day

regarding lithography save the application of the steam press and photography to it.

The art was invented between the years 1796 and 1798, by a German musician and playwright, Alois Senefelder. Senefelder was not in a very flourishing condition at that time, and he tried to find some way of engraving or reproducing and printing his plays and his music. He searched for a long time vaguely, because he was suffering from exactly the same thing that you are—there were no technical schools at that time in Germany, and he had to invent everything for himself—though I scarcely believe that many of you would take the trouble to do that. Senefelder invented what he thought was lithography, stone printing, in the year 1796, but it was not lithography at all, only the art of engraving on stone, just as Blake was engraving on metal in England about the same time.

Senefelder had no idea that he was an artist, though he later attempted to become one. His desire was to print his music from stone plates, which he thought would be cheaper than copper.

He made his drawings and wrote his music with a greasy ink which he invented, writing the notes backward on the stone. And when they were written he poured nitric acid on the face of the stone, just as Blake did, and the ink, which was an acid-resisting varnish, like etching ground, protected the parts of the stone drawn on, and bit and reduced the undrawn-on parts and left the notes of the music standing in relief.

He had not discovered anything, for if he had taken the trouble to go into the nearest churchyard in Munich he would have found this form of engraving on tombstones dating from the time of

Dürer. He did not take up art; so far as is known, this is the only drawing that he ever made—a study of a house afire—and beyond its historic importance I do not think it amounts to much except to prove he was not much of an artist. It was done in the same way as his music. He found out that he was not on the right track, and after thousands of experiments, as he says in his book, *The Grammar of Lithography*—for everything that he did is described in that book—he found another method.

In trying to get his music and his plays on the stone it occurred to Senefelder on one occasion—or as he says, after thousands of experiments—that if he made his drawing or writing with the greasy ink with which he drew on paper, and then transferred that drawing from the paper to the stone, and then if it came off from the paper to the stone why could he not transfer it back again on to the paper, and so get a print. He tried and succeeded and lithography was invented.

He interested his artist friend, Strixner, who made this drawing with pen and ink—the greasy ink made of tallow and grease dissolved in water—on a piece of paper, and he took that paper and laid it face down on the stone and ran it through a copper plate press, of a very primitive sort, like one of those I showed you on the screen the other day, and the drawing came off of the paper on to the stone. And it then occurred to him that if he were to dampen the stone, put some more ink on the face of it, lay a piece of paper over it, and run it again through the press, the drawing might come off again on to the paper.

He tried and it did, and that is the whole of lithography. The surface of the stone or plate is

neither raised nor lowered, the lines are neither in intaglio nor relief, the print is made from the flat surface.

As I told you, a wood engraving or a wood cut is made by putting ink on lines which project above the rest of the lowered block. Etching, as I also pointed out to you, is made by cutting or biting lines into a plate which print when inked. But in lithography there is no engraving or etching. The lines are flat on the surface and the drawing prints because grease attracts grease and repels water. It is a chemical action and his name for it was chemical printing. The drawing which the artist makes on paper or on stone or on a metal plate is not bitten into relief or cut into the plate. It is a multiplication of the original drawing which the artist made, not a reproduction. And this is the whole of lithography; and the difference between it and all the other graphic arts. It is not an engraving, not a reproduction of a work of art, but a multiplication of it. It is the simplest and the most artistic method that has ever been invented or ever practiced.

Soon after Senefelder showed to Strixner and other contemporary German artists the merit of the method, it was taken up, and the first thing that was done was the publication of *Galleries*, as they were called—portfolios of copies of the pictures in the German galleries.

This pen drawing is a reproduction of Dürer's *Missal of Maximilian*. That was the first book that was produced by lithography. There are many pages of reproductions of the decorations of the missal, a portrait of Dürer, and other matter.

German artists in the early days of the last century did some extraordinary work, but Senefelder,

as I said, was not an artist, but a clever business man. His idea, in the main, was not the making of works of art, but of printing from calico, and in order to do that he went to that commercial nation called Great Britain, where he thought he would have more success than he would have in Germany. He took out patents for his invention in his own country and England. But in England he fell among artists, and the artists were delighted with the method, and among those who practiced it were West and Blake. And here is a print by Blake.

The only thing needful about lithography is that you have to know how to draw, if you are going to make a lithograph, you have to know how to draw to make even an etching or a wood engraving. You may not have to do that in order to make an oil painting, but you do to make a work of art. In these last days this is not always insisted upon by incompetents who cannot draw.

Blake made this design, and this one alone. Why he made no more I have no idea. It is a very successful and characteristic one. As you will see, all an artist's character and technique come out in lithography, because there is no translation, no reproduction, no change. The lines print as the artist drew them.

A few years afterward—I think it was about 1816—Senefelder published his treatise on the subject, *The Grammar of Lithography*, and that book is the authority to this day. Everything that we know about lithography is in its pages; the only two things which have been discovered since are the application of the steam press to printing lithographs, and photography, by which they are at times transferred to the stone.

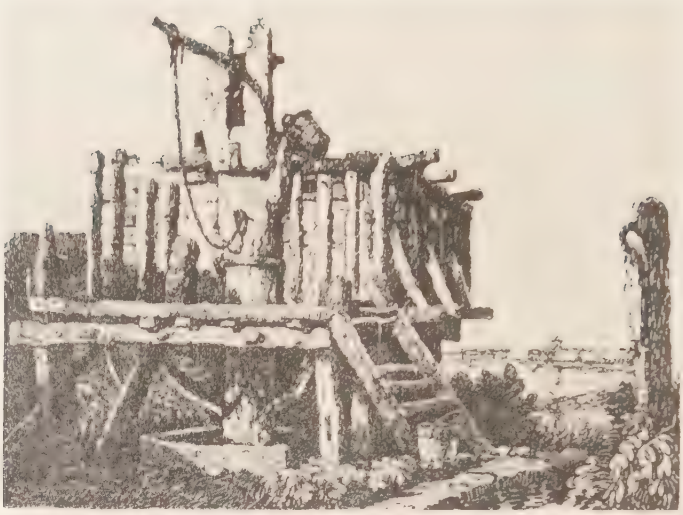
The art in the beginning was not called "lithography," but as you see there, "stone printing." That was not even the original English name for it. It was called the very simple and compact one of "polyautography," which did not catch on very well, but it describes the art perfectly—"many autowritings." It is the multiplication of drawings and writings, and not the reproduction of them, as are all the other graphic arts.

Senefelder, however, after obtaining his patent and recognition, though he had many difficulties and adventures in London, soon went back to Germany.

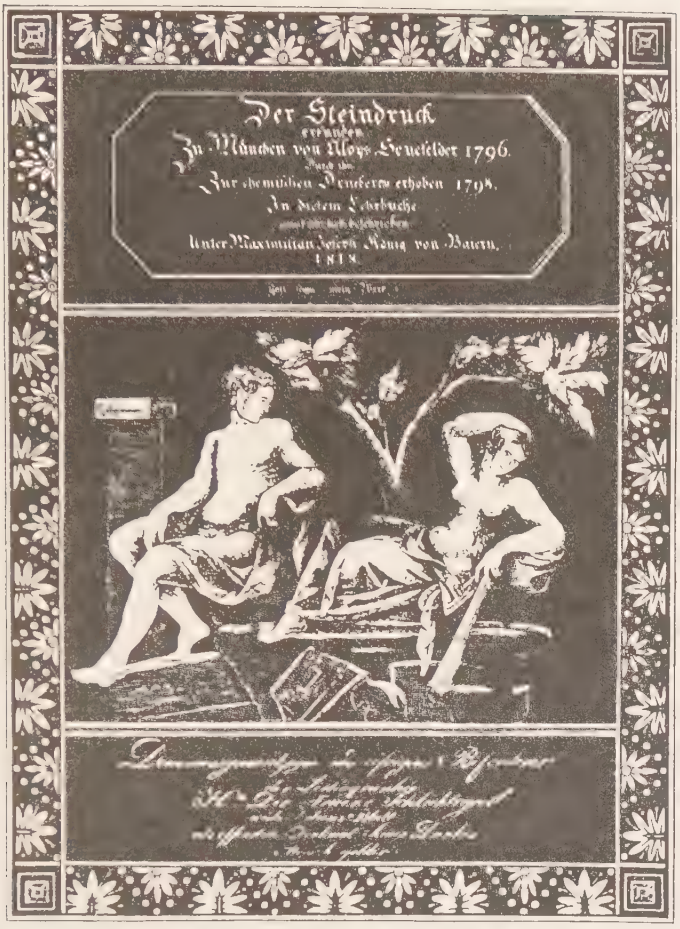
This slide shows a very curious plate by Samuel Prout (Page 224), published in the English translation of *The Grammar of Lithography* in 1818. It is curious because it shows the earliest method; it proves that at the beginning the drawing was not made on the stone but made on paper, and transferred to the stone. And Senefelder himself says in his book that for artists this is the most valuable discovery in lithography, because the artist will be able to go out of doors to make his drawings on paper, have them transferred to stone and printed as he could in no other way. This pen drawing by Prout was done in that fashion.

Almost immediately artists of eminence began to take up the art, and one of the first was Géricault. He was living in London about the time that Senefelder was there, and made this drawing, which was one of a series of prints of the favorite form of British recreation of that day. That form of recreation has been transferred to this country, and among the greatest heroes is a gentleman who recently arrived in this country from France and is

F. HANFSTAENGL: PORTRAIT OF SENEFELDER. LITHOGRAPH



PAGE 222 SAMUEL PROUT: THE PUMP. PEN DRAWING TRANSFERRED FROM PAPER TO STONE, PRINTED IN SENEFELDER'S "GRAMMAR OF LITHOGRAPHY." LITHOGRAPH



PAGE 221 TITLE-PAGE OF THE "GRAMMAR OF LITHOGRAPHY"

PAGE 227 F. GOYA: THE BULL FIGHT. LITHOGRAPH

PAGE 228 A. RAFFET: ILS GROGNAIENT MAIS ILS SUIVAIENT TOUJOURS. LITHOGRAPH

creating more interest than Maeterlinck or Lodge. However, we will not consider that matter of public taste so much as the extraordinary way in which Géricault did this drawing. The upper part of this figure is done in pen and ink, the legs and the body in chalk, and the reverse is the case in the other figure. This proves how quickly artists recognized the possibilities of the art. The drawing was done in 1805 or 1806.

But all artists who saw the new form of art began to practice it, and the portfolios and albums and galleries which came out shortly afterward contain some of the most perfect lithographs, although even at that early date some of the artists, especially the Germans, began to get that lithographic quality in their drawings which we all so hate and loathe, and which you see in the commercial lithographs about you—the perfection of technique, the destruction of art.

Lithography spread very rapidly over Europe, and got as far as Spain, and Goya, whose work I showed you last week in aquatint, made a number of lithographs, finding it a most congenial method. This lithograph (Page 226), one of a series of "Bull Fights," is deservedly famous. It was brought very early to this country, but very little artistically was done here.

Then the art went back to France, where two or three men began to practice it with great success. One of them was Charlet, and this drawing (Page 229) is curious, because it shows another method by which a lithograph can be made. It is evident that the stone was entirely covered with a film of ink, and, if it had been printed before any drawing was put on it, it would have been perfectly black all over.

Charlet then either took a scraper or a knife and scraped the design in white line out of the black surface as the mezzotinter does.

There is no limit to the methods which can be employed. The number and variety of them are only now just beginning to be known.

Another artist who at the same time began to practice it was Raffet. And these two, Charlet and Raffet, invented between them what is known now as the "Napoleonic Legend." Their stunning drawings of Napoleon and the Napoleonic Wars were sold then as propaganda throughout France, and some of them got to England, and over here.

I know of nothing finer in early lithographs than this design of Raffet's of the "Nocturnal Review."

There is still another, "The Retreat from Moscow," "*Ils grognaient mais ils suivaient toujours*" (Page 226), which is equally fine. And all of these designs were published in very popular form and sold for a few sous apiece, and were widely circulated all over Europe. They were about a foot in length, and were issued a dozen or so in a portfolio.

But the art was used for other purposes than popular propaganda. An Englishman named Baron Taylor early in the last century, about 1825 or 1830, went to France and began to publish an illustrated description of the country, and he got the most eminent artists of France and England to work for him. He obtained government support and began to issue his *Picturesque France*.[1] One of these artists was Richard Bonington, and Bonington made, in one of the volumes of this great work,

[1] *Voyages pittoresques et romantiques de l'ancienne France.*

PAGE 227 T. CHARLET: TIREURS DE LA COMPAGNIE INFERNALE. DRAWING SCRATCHED FROM BLACK TO WHITE LIKE MEZZOTINT. LITHOGRAPH

PAGE 231 R. BONINGTON: RUE DU GROS-HORLOGE. LITHOGRAPH

this fine drawing of the "Gros-Horloge" in the street at Rouen, one of the masterpieces of the art (Page 230).

Bonington experimented for himself, and in a very short time he made a series of drawings in chalk and in wash, which have never been surpassed to this day. He was one of the greatest of the lithographers, and one of the earliest. As in the other forms of the graphic arts new artists appeared with new methods.

Another man who worked at the same time as Bonington on these volumes was Isabey who treated mainly the seaports of France in the most realistic fashion. Not only that, he made a series of designs in a portfolio of marine subjects. None of the mezzotints I showed you the other day rivals this in drawing, in color, or in handling (Page 233). It is only a small chalk drawing, some six or eight inches long, but it enlarges wonderfully, and gives you an amazing effect of form, of the movement of the sea, and the color of water and sky done in the simplest way, just with a piece of chalk, the whole design drawn on paper or stone. Probably this drawing was made on stone, because these artists made their sketches out of doors, brought them back to their studios, and worked them up on the stone, this being the easiest way, as the paper which Senefelder prepared for drawing on, was not reliable.

Another great man who also practiced the art very extensively was Daumier. And this design (Page 233) was published, I think, in *Charivari*—I am not certain —and is one of the episodes of the French Revolution of 1848. For making that drawing, which was a sort of satire on the horrors of the Revolution of '48, Daumier was promptly put in prison, and when he got there he employed himself not in weeping or

wailing, but in drawing portraits of his fellow-prisoners. This is about as wonderful a sample of portrait design in lithography as I know of, and it proves the fact that an artist who is an artist will find his subjects always about him—whether in prison or in heaven or somewhere else; all he wants is a sheet of paper and a piece of lithographic chalk to prove it so.

A third man who took up the art at this time was Gavarni. Gavarni is mostly known as a draughtsman of fashion and of costume and events, and this masque ball is a good example of his work. But he was not satisfied with that alone, and he made many portraits of many people, among them the De Goncourt brothers. And besides that he also made a series of portfolios of folk-lore, and popular legends, and this figure, Père Vireloque (Page 234), is taken from one of them. And I would like you to notice the extraordinary way that this drawing on stone was handled, the extraordinary quality and character that Gavarni gets in all of his work, the difference between the tottering creature, and the firm ground, the handling and the modeling of the figure. The technical work is beyond belief in the variety of the textures that he has got out of that stone or plate on which the drawing was made.

Hervier made this drawing in a different way from any other that I have shown you. It was made entirely in wash—for you can work in any way at all, on paper transferred to stone, or on the stone itself. The wash is made from the greasy chalk which the artist uses, dissolved in water as you dissolve india ink or solid water colors and the artist uses the dissolved chalk like water color.

PAGE 231 E. ISABEY: RETURN TO PORT. LITHOGRAPH

PAGE 231 H. DAUMIER: RUE DU TRANSNONAIN. LITHOGRAPH

PAGE 232 A. GAVARNI: PÈRE VIRELOQUE. LITHOGRAPH

PAGE 237 E. DELACROIX: THE LION OF THE ATLAS. LITHOGRAPH

PAGE 244 FANTIN-LATOUR: SYMPHONY. LITHOGRAPH

PAGE 244 FANTIN-LATOUR: ROSES. LITHOGRAPH. (NOTE LINES IN DRAWING PAPER ON WHICH THE DESIGN WAS MADE)

And it might be just as well if I told you at this moment the theory of lithography, which I have not done yet. It is so simple, and the drawings are so easily made, that I almost forgot it. The theory is this, that if you take a piece of greasy chalk, and draw either on the stone, or on paper, and transfer it to stone, and then dampen that stone and take some more of the greasy chalk made into ink with varnish or oil, on a roller, very much like the one that I showed you the other day for printing etchings, for inking the plates, and roll more greasy ink on to the dampened stone, the ink will only adhere to the greasy drawing which is on the stone, and the water with which the stone is washed repels the grease, while the grease attracts the ink (which is also grease), and then when the paper is put on the face of it and run through the press the print comes off on the paper. The whole is chemical affinity, nothing else. It is simply the affinity of grease for grease and the repulsion of grease by water. That is the whole principle, and the whole theory, and the whole practice of the art.

It is so simple that for many years it fell into the hands of the commercial lithographer, and one of the first of these, although he was a very great printer, was Lemercier, and he did more to advance lithography during the middle of the last century than anyone else in France. But he did another thing: He made a secret of lithography, invented all sorts of mysteries and surrounded the art with them. But in France the artists continued to use it, and this "Lion" of Delacroix (Page 235) is a design that justly ranks as a masterpiece of drawing and printing.

Here is a print by Linnell, done in England, showing quite clearly the difference between the work of

the artists of the two countries. The art migrated from England to France and back to England again, just as in the case of wood engraving.

Here is a drawing by Cattermole, a wash drawing which shows the difference between English and French drawing, when artists tried to be themselves and not imitate the popular man of the moment, as most artless duffers do today. Lane was another English artist and portrait painter who practiced the art in England. In those days he could get all the sitters he wanted to pose for lithographed portraits. But today we have advanced so far in art that if we want a portrait made—we go to a photographer. Then, too, lithography occupied in the salons and drawing-rooms the same place and the same importance as bridge. People then cared for art instead of talking about it—or hearing it talked about.

But it was treated in many ways. For example, it was used by men who one would not suppose were caricaturists. It was used by Sandys, whose wood engravings I showed you in the first lecture. Sandys made this extraordinary pen drawing, one of the finest that has been done on zinc, and it was published as a caricature and produced somewhat of a sensation. It may surprise you to know that he was so absolutely reckless that he made a drawing on this plate; and that it was supposed to represent John Ruskin as the ass, and on his back are Millais, Rossetti, and Holman Hunt, the pre-Raphaelite brotherhood, while Titian and Tintoretti you can see in the distance singing *ora pro nobis*. The whole design was a burlesque on Millais' "Sir Isumbras at the Ford." And Ruskin, the prophet, and Hunt, the serious one, got into such a fury that they

PAGE 243 A. VON MENZEL: THE GARDEN. FROM SKETCHES ON STONE WITH CHALK AND SCRAPER. LITHOGRAPH

PAGE 245 EDOUARD MANET: PORTRAIT DE FEMME. LITHOGRAPH

PAGE 245 F. ROPS: THE LACE EXPERT. LITHOGRAPH

PAGE 245 F. ROPS: READING THE MISSAL. LITHOGRAPH

endeavored to prosecute the maker of it for libel, but as he was careful not to sign his name they did not find out for some years who did it. But technically it was a very remarkable drawing, and it lives because of its excellence, in drawing and printing.

Lithography, as I said, fell into the hands of the commercial lithographer and for years few artists practiced it. But the man who revived it in Germany was Adolph von Menzel. As I told you of the draughtsmen on wood, all these artists were so keen for the technique of any art that they practiced every form of art which appeared, and Menzel did more in Germany to make it into an original form of art than any who had gone before him. Those drawings for his volume on *The Uniforms of Frederick the Great's Army* were all in pen and ink, and done on the stone. But he carried lithography farther than anyone had; in this "Christ in the Temple" he produced a masterpiece. It has been drawn in almost every way, drawn on stone, with ink and pen, and with wash and chalk all combined. I have shown you nothing in which such an amazing lot of types have been so truly rendered as this lithograph by Menzel. I am sorry that scarcely any of these prints that I have shown you are in the print room. They ought to be. For you must have good examples to study if you wish to do good work, and carry on good tradition.

Here is the perfection of Menzel's work (Page 239), one of a series of designs he made for a portfolio called *Sketches with Chalk on Stone*. It has all the characteristics, you can see, of a mezzotint, and yet it is a lithograph. In fact some of these designs so closely resemble mezzotints and aquatints that even

this morning I was shown in O'Brien's place some of these early lithographs which I could not tell myself, as the plate marks were cut off, whether they were really lithographs, as Mr. O'Brien maintained, or whether they were aquatints. At first I thought they were aquatints, but they may possibly be lithographs, though probably the artist, knowing about aquatint, used some form of it, in some way, on stone.

Here is another example of modern German work by Otto Fischer. You see again the artist has not lost a single bit of character, the character of his handling, or his technique, or method of expression. You are not cramped in the slightest in your drawing when you make a lithograph.

Here is one by Otto Greiner, done entirely in pen and ink, a remarkable example of brilliant drawing, freely done, in which the character of his work is perfectly preserved.

Another man who took up the art a little later than Menzel was Fantin-Latour (Pages 235 and 236); he practiced it for years, and revived the art in France. You all know his paintings of roses and his subject pictures, and his lithographs are equally well known. Nothing could be more beautiful than those roses. He loved drawing, and practiced lithography because he loved it, because it gave him line and color. He kept on for years, until the close of his life, either working at flowers or symphonies, which he rendered in lithography, as well as in oil.

There is another thing about his lithographs. I do not know whether you can tell it from this one, but in many of them you can see that these drawings were made on paper, Michelet charcoal paper. You see the lines of the paper and the watermark which

you find in all Michelet charcoal paper in the prints. Fantin-Latour made all his drawings on paper, took them to the printer, ran them through the printing-press, when they came off on the stone, and then printed them as Senefelder did. You cannot make any change in the drawing, if you make it on paper, but you can make any change you want to as soon as it is transferred to the stone. You can add or erase with perfect freedom.

You remember I showed you some of Félicien Rops's aquatints the other day. He was equally remarkable in lithography. He did a vast number of plates, and published a remarkable magazine some forty or fifty years ago. Here are subjects (Pages 241 and 242) showing that he was a perfect master of his medium, able to use it any way he wanted.

Henri De Groux was another Belgian, a mystic or a "horrorist," and, although he died before the war, still he carried out in some of his works horrors which, had he lived, he would have seen his country undergo; his country's misfortunes might have been forever recorded.

Jean François Millet practiced it too. Every artist tried it. And here you can see, those of you who know his etchings and his wood blocks, how freely and quickly and easily Millet worked. There is no difficulty about lithography at all, except the difficulty of drawing; if you can draw you can lithograph. There is no practice necessary at all, except the endless practice that an artist needs all his life to carry on to develop his art.

You remember that "Raven" by Manet, drawn in line, which I showed you last week. Here is a portrait (Page 240) equally freely done, done in lithography. It was freely done with a brush—it

looks like it—with a little bit of chalk work put in maybe.

Here is another wash drawing, and a very remarkable one by Lunois. These drawings were printed in color; color can be added to lithographs; Senefelder showed how to do that, the same way as the Japanese made their color blocks, only far more directly, as there were no wood blocks to cut.

But there is another thing about lithography in distinction from etching and engraving. When you make an etching you have no idea what you are going to get until the plate is printed, and then you frequently get a shock. In lithography you can see everything you do the whole while you are doing it. Your drawing grows under your fingers just exactly as any other drawing, and you know it will print just as you drew it, and that is the reason why lithography fell into the hands of the commercial lithographer who wrapped it up in mystery because the technique was so simple, so direct, so easy that even he could practice it.

Those of you who remember that wonderful study upstairs will see that Carriére preserved his methods in this print just as much as he has in his paintings.

Here is one of Anquetin's designs, very free and bold, and yet done with all the character that he would get with his pen drawing. It is an early French poster. This head is after Henri Martin (Page 247). I imagine that the greater part of that was scratched out like a mezzotint.

Here is a reproduction of that great Rembrandt which was in the Hermitage at St. Petersburg. What has become of it now? We can only hope that it exists. But at any rate, we have still wonderful reproductions of it, in this wonderful art.

PAGE 246 HENRI MARTIN: THE VISION. LITHOGRAPH BY PAUL MAUROU

PAGE 251 A. FAVRE: ON LES AURA! LITHOGRAPH

PAGE 251 TH. STEINLEN: 18 MARS. LITHOGRAPH

PAGE 251 J. L. FORAIN: THE LETTER. LITHOGRAPH

Steinlen also took up the art (Page 249), and in his pages for *Gil Blas Illustre'* and other magazines he made a series of drawings well worth study. You must study the work of all these brilliant technicians.

Lithography was used as war propaganda, in the last war as well as in the time of Napoleon. You have seen the French posters as well as our own.

Forain and Steinlen were trained lithographers, and when war came on they made use of the art for the benefit of their country. You will see this all through Forain's war work, and the books that he illustrated before the war and in the pages of *Figaro*.

This is one of Forain's designs (Page 250) done during the war. Almost all of his drawings that you see in *Figaro* are done with lithographic chalk or pen and ink. They are made, as I told you, into photo-engravings. Abel Favre made the most celebrated poster (Page 248) that was done during the war—"On les aura!" its meaning was plain to all who could see.

There is one thing I want to tell you about these posters, and that is that the French artists who made them knew exactly what they were doing and what they wanted to do, because they were technically trained craftsmen.

The design was made by the artist not as a water color or an oil painting, but as a drawing right straight on paper or on stone in lithographic chalk—if on paper, transferred to stone, or on the stone itself. For all those men in England, in France, in Italy, and also in Germany—I suppose they must have had posters, although I have not seen any of them—knew absolutely how to work for lithographic printing.

Maris lithographed his Dutch landscapes. This looks exactly like his wash or charcoal drawing, but

he has kept all the character of any of his work in other media.

Another man who took up lithography was Bauer (Page 265), also a Dutchman, who is better known by his paintings and etchings. Yet whether that Sphinx was done in Egypt or not, he has made a remarkable record of it. It was also done with remarkable technical knowledge and skill.

Veth, still another Dutchman, has used the craft very brilliantly. Here is a portrait of the reviver of lithography, Menzel, in his old age. Menzel did a considerable amount of work which I have not shown you, but it is all well worth studying, and reproductions of much of it are in the Ryerson Library.

The third man who took up lithography and practiced it more than Menzel or Fantin-Latour was Whistler, and this is one of his earliest designs. It was drawn on stone, because at that time the printer Way was very anxious to get Whistler to work for him, and he was good enough to supply Whistler not only with stones, but with wheelbarrows and with men to wheel them about, because a stone even a foot long, as this is, and three inches thick, weighs a lot, and the artist cannot very easily lug it around. Whistler found this out in his first experiments after he had made two or three drawings on stone; this one is done with pen, with brush, and with wash.

From the very beginning he began to experiment, and experimented in many ways that no one had tried before him. He found right away that if he wanted to draw out of doors, as he always did, from nature, and did not have his men and his wheelbarrows around, it was impossible, so he began to

use paper. The paper that he had at that time was horrible stuff, and I speak from a horrible experience, which he had too. But he mastered that paper. It was covered with a shiny grain, and it was a nasty sticky substance, and it was one of the most difficult things in the world to work on; yet he made on that paper this charming design, one of a number, and this design was published in a paper called the *Whirlwind*, which was issued in London; so little was the lithograph cared for that it was given away, not as the Japanese color prints I told you about the other day with a pound of tea, from which Whistler learned about the nocturnes, but they could not give this paper containing Whistler's prints away; it was sold as waste paper. And now collectors give pounds to get that very drawing, when they can find it—a drawing they would not have when he made it, though it used to sell for a penny.

Whistler knew that his lithographs had the same artistic value as his etchings. He devoted the same care and skill to them, but people thought otherwise at that time, but now they have come around to his way of thinking.

This drawing of Stéphane Mallarmé was done on another kind of paper, on smooth Japanese transfer paper. I happened to be with him when he made it. And although that drawing looks as though it were knocked right off—the drawing itself, when he got it right did not take very long—he put piece of transfer paper over transfer paper, tore them up, and started afresh and all the while he kept poor Mallarmé posing, and he kept on for two or three weeks until he got this remarkable portrait, which was published as the frontispiece of Mallarmé's volume of verse.

Whistler experimented in all sorts of ways, and with all sorts of subjects. As he used to say, he was no landscape painter or portrait painter or figure painter, but he was an artist. He said "the man who cannot draw or paint everything, cannot draw or paint anything," and he proved the truth of his proposition by this study of a shoeing forge, drawn as well as any man could who devotes himself to the study of horses. That was done on paper—the greater number of his lithographs are on paper. Many of his drawings were made in Paris, and when finished the sheet of paper was sent over to London to his printer, Way, and there put down on the stone.

But you must know at this time the secrecy in the art of lithography was so great that Whistler, during the whole of his lifetime, had no idea how drawings were put on to the stone, or how they were etched, or printed. The etching is nothing but washing the stone with acid to keep the lines from spreading.

But the drawing made on paper was sent over to London, and then transferred to the stone, and when it was put on the stone, sometimes half the work was lost, and Whistler had to go to London, get the stone, and draw on it again the work which the printer had lost, in order to get the effect that he had in the beginning on paper. Had he been allowed to go into the printing office and see the drawing transferred, etched, and printed, we should have had more lithographs and even better lithographs than we have today from him. These hindrances drove him and many other artists from lithography.

Finally some of us broke open the door of the lithograph shops and we found that the secret

of lithography consisted mostly of stale beer and lemon juice, conservatism, and stupidity. It was with such secrets that the craft was surrounded. And it is in ways of this sort that most of the secrets of the arts are hidden.

There are several architectural subjects by Whistler, astounding studies of architecture done by him a little before he died. Look at the wonderful way the "Church of St. Anne's," that old Georgian church in Soho, is drawn and the feeling of a dreary, dark day given. I remember the afternoon he came into my place and said he had seen the subject, and in about two hours he was back with the drawing on a piece of paper. He had gone out, done the whole thing, and that same afternoon we went over to the printer's and it was put on a stone and printed. As I shall show you on Thursday, a lithograph can be made more rapidly than an etching.

Here is a portrait he made of me, in a very short time, the result of a lifetime of practice (Page 257). As I sat in a chair in front of the fire in my place in London, and he sat on the floor with his back to the fire and worked until he could scarcely see, so great was the darkness, yet he kept the feeling of firelight in the coming twilight in a most remarkable fashion. He kept on working till he could scarcely see, for he used to say there is so much to do, and so little time to do it.

This is one of the last, if not the last, of the plates he did. It was done under most trying circumstances—when his wife was ill—in the Savoy Hotel, looking out of the window across the Thames; it is the most perfect of the wash drawings he did. It was all done in wash, exactly as a water color, on

the stone, not transferred to it, and it was scraped and burnished and then redrawn over and over again until he got the effect he wanted. But it was not done easily or quickly or simply. There is very much work on the stone, for the first proofs were very poor indeed, black and smeared, though he never was daunted by that, but kept on with his work until he got the result that he wanted; and out of this plate he made one of his finest lithographs.

Sargent has made a few lithographs. This was done on paper. And I have often wondered why he has not done more, because in the first and almost the only design he ever made, he made a great success. And I cannot help wondering, as I said a little while ago, why people who want their portraits drawn do not get an artist to do it in lithography. As I have shown you, it is a most beautiful form of art, and here is a proof that anyone who can draw, as Sargent can, can make a fine lithograph on his first attempt. F. Walter Taylor is beginning to do portraits, and I hope he may go on.

Beardsley, too, is another example of a man who worked in all sorts of media, and these posters by him are as fine as anything that he did (Page 298).

Here is another, done in blue and white, nothing else. And the theater poster was the success of a London season, more of a success than the play was.

Another man who took it up in England is William Rothenstein. And here are portraits of two English artists (Page 258), both of whom have done important work in lithography. I am sorry I have not slides by them. They work together, but their work is along different lines; Shannon does romantic compositions, and Ricketts has taken, to a great

PAGE 255 J. A. MC N. WHISTLER: PORTRAIT OF JOSEPH PENNELL. LITHOGRAPH

PAGE 256 W. ROTHENSTEIN: PORTRAIT OF CHARLES RICKETTS AND C. H. SHANNON. LITHOGRAPH

PAGE 261 F. BRANGWYN: PORTERS. LITHOGRAPH

PAGE 261 MUIRHEAD BONE: THE SHIPYARD. LITHOGRAPH

extent to making theatrical posters, like Beardsley—however, in his own way.

This is a portrait of Mr. George Bernard Shaw. It is better looking than Mr. Shaw is now, and it is rather a good design by Rothenstein. I wonder that Shaw has not taken to lithography himself. He has tried everything and succeeded in a few things, especially in advertising.

Brangwyn (Page 259) also has done a great deal in lithography. And all the men whose work I am now going to show you are artists who have been trained in lithography.

When it was found at the beginning of the war that we had not an artist in the United States of America who was able to make marine subjects in lithography, the government had to send to Europe, to London, to have a drawing made which would print. Nobody knew how to do it here, in this highly enlightened country of ours which is full of artists. The government could not get an artist who could make a marine drawing which could be put on the stone and printed at once. So they had to send to London to have the drawing made by an Englishman, and that drawing was sent here in a British dispatch box, and was put on the stone by the American Lithographing Company, and prints were made of it in a few hours after it arrived.

There is an example of our utter unpreparedness in art when we went into the war.

There were a number of other Englishmen who took up lithography as propaganda work, and here is a design by one of them, Muirhead Bone (Page 260), a most original design, in composition and arrangement. The top of this great crane looks down on a shipyard. Before the war Bone had not made

a single lithograph. He took up the art and made a success of it, and did a great service to his country.

But at the same time he, and I believe all the other men, went to the printer's and saw that the drawing was properly put on the stone and properly printed. And that is what scarcely anyone takes the trouble to do in this country. Most of you students are afraid of soiling your lily-white hands.

During the war we artists who were connected with the Bureau of Public Information, the Pictorial Division, had about five hundred painters and illustrators working for us, and do you know, out of that five hundred there were not five Americans who knew how to make a lithograph at all, or even how to make a drawing which did not have to be copied, redrawn, or photographed. This technical ignorance was an enormous loss of time in government propaganda, and an enormous waste of government money, because all the work that these untrained patriots did had to be done over. You had a most excellent Division here in Chicago, but scarcely a man knew how to make his drawings.

This design (Page 263), also a war drawing, is by Spencer Pryse. It was made on a zinc plate, as I remember, and he proved it and printed it and saw to the whole thing. And unless you students care enough about your art to do that, to care for your drawings and print them, when you get a lithograph press, the sooner you get out of art into something else, the better it will be for yourselves; art can get on very well without you.

Another English war artist was Nevinson (Page 264). These drawings, as I understand, were not done at the front, because no artist did anything immediately at the front, for there was nothing there to

PAGE 262 SPENCER PRYSE: BELGIUM. LITHOGRAPH

PAGE 262 C. W. NEVINSON: THE ROAD. LITHOGRAPH

PAGE 252 MARIUS A. F. BAUER: THE SPHINX. LITHOGRAPH

PAGE 271 C. B. FALLS: POSTER. LITHOGRAPH

do, nothing to do but to keep your head under cover. When you got to the front, as I saw it, there was nothing to see and if you stuck your head up you might lose it. But most of these British drawings were done some five or ten miles behind the lines.

There was another thing about this British propaganda work. Do you know that the British and the French governments did more for their artists over here than we did for ours? The best of the work that was done was sent over here to show what Great Britain was doing. The United States government did not have enough knowledge of how to exploit itself to send the work that we did even around this country. None of it but some of my own ever got to Europe during the war; it has not got over there yet. And that is altogether due to the fact that we have no art head, no art direction, no Secretary of Art, no Art Department in the United States. And I hope that before we go into another war, before we do anything more, we will have an Art Department in this country. We must have it. We are bound to have it. Or we have got to give up talking about art, because we are rapidly becoming, owing to the want of government protection of art, one of the most artless countries on the face of the earth. The government thinks art a luxury—it is a financial asset.

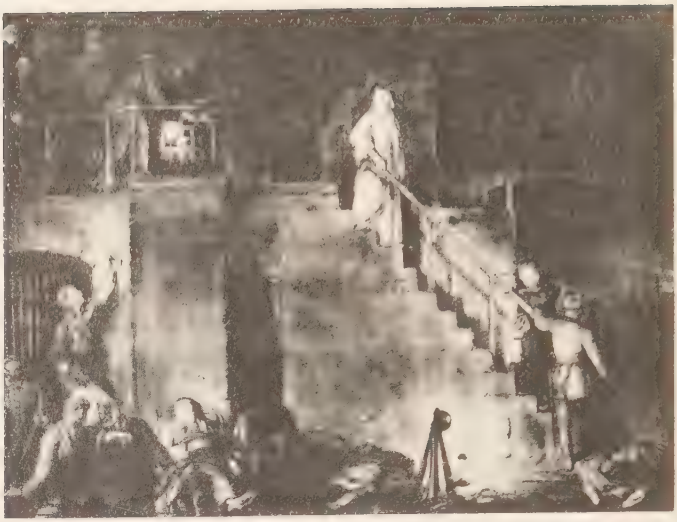
Only today, I believe, there is a committee or a commission in Chicago begging for funds to start, in the American Academy in Rome, a department of music. Is it not a pretty spectacle for the United States, when the American Academy, so-called, of Fine Arts in Rome, and of Archeology and Classical Studies has to send private people out to

beg for money, that we ought to be able to demand from the state! The state should furnish that money, and should support that Academy. We have a very fine Academy in Rome, just as the French have an Academy and as the Spaniards and the English have. But the Spanish public and the French public are not asked to support their academies. The governments pay for them, because they know that art is a financial asset, as important as big business and a great deal more so. We don't know enough to know how little we do know.

Another thing is that, although in our Academy we are now to have all the branches of the fine arts, there is one that we are not to have, the most important of all, the one in which this country has made the greatest name, and that is the practice and teaching of the graphic arts. Every other country has in its academy a school of graphic arts. We have not. And yet it is in the graphic arts that the United States has done its best work, as I think you will admit after seeing a good many of these slides. Until we get a school of graphic arts we are simply out of competition with other countries.

And there is another matter. The pupils for the French Academy in Rome are obtained in this way: In France there are government art schools in all the big provincial towns. And from those art schools the best pupils are sent to Paris to study in the École des Beaux Arts. And they have all in their heads the hope that they may win the Prix de Rome; when they have got that, they pass four delightful years in Rome putting what they have learned into practice. We have no such schools. If a man does win the American prize, a studentship in the American Academy, he wins it simply

PAGE 272 JOSEPH PENNELL: DOORWAY, ROUEN. LITHOGRAPH



PAGE 271 GEORGE BELLOWS: THE MURDER OF EDITH CAVELL. LITHOGRAPH

without any tradition, without any definite system of teaching, only because he can pass a certain examination. And the best craftsman, the most useful artist or art student, has but little chance to win.

It is the duty of this country to organize national schools in every great city in the land. We should have in Washington a great national art university, and from that national art university the best students should be sent by the government to Rome or Paris or the most inspiring centers of art work, and then we will get some national art, and we won't get it in any other way.

One man, however, who did work intelligently for the government was this artist, Charles Falls, and another was Adolph Treidler, both Chicago men whom you never had the sense to appreciate, as I told you when I showed you one of Falls's drawings last week. This was the most popular American poster (Page 266), I believe, that was made during the war, or one of them, and one of the most artistic ones—at any rate, one of the most effective. And it was made by a man who knew how to make posters, and who trained himself to make them—trained himself by working in a shop, and that is the reason why the poster was so good, so effective, and had such a very satisfactory result when books were wanted.

Here is the work of another man who also has given much time to practical lithography, setting up a press for himself Mr. Bellows (Page 270), who was here during the winter. He has carried out that study of the "Murder of Edith Cavell" in a remarkable fashion, though as he did not see it I rather prefer this second slide, in which he has drawn something

that he has seen; I think this is a finer rendering of something that he has seen, than the other, which he has imagined. These two, however, are very interesting lithographs, done by a very amusing man.

And a propos of this I show you this print for another reason. It is a drawing I made in Venice in 1912—this is only the key block of it—which the Venetian government used as a poster. But what I wanted to tell you about it was that the drawing was made from nature in Venice, taken to London and put on stone without anybody working on it except myself, and then transferred again; that is, a copy of it was printed with very greasy ink, and then it was packed up and sent to Italy and printed there. No other artist, no engraver, no photographer, had anything to do with it—the drawing as I made it printed.

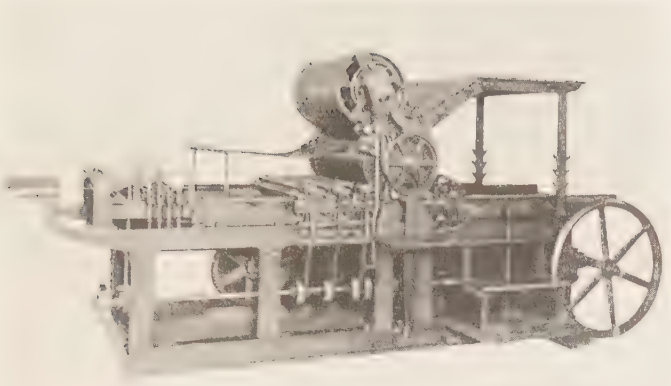
Here is another. This was one of the first drawings that was made on paper and transferred to stone in modern times and the original kept. It is transferred extremely well technically, and I want to show you next week exactly how that is done. That was transferred and printed by Charles Goulding, the brother of the etching printer in London.

This is the shop in which I work (Page 286). It is not so bad. And I work with that printer who stands beside me. You can see the type he is and the nationality he is. And every workman, almost, in that shop is a German, and they have been there for years; they were there all through the war, though most of them, I suppose all of them, or nearly all of them, are American citizens. But there is not in that shop, or there was not before the war, scarce an American-born lithographic prover or

artist, because there is not a single craft school, except one in Cincinnati, where the art of lithography is taught —the simplest art in the world—and yet there is nobody who has taken the trouble in this country to try to learn it, and we have to import nearly all the trained lithographers that we have.

These are two forms of presses which are producing in this country the most amazing results. They are making really a new epoch and a new era in lithography. I said that everything was in Senefelder's book, but this is the latest method of work. The drawing is put on this flat bed, and runs under this cylinder which is covered with a rubber blanket, and the rubber blanket takes the impression and transfers it on to the paper which is upon the press. The same way, more or less, in the other. That is what is known as the offset method, a method which is going to produce in the very near future a great revolution in lithography. But I hope I have shown you in this talk what wonderful work has been done, and next week I want to show you exactly how it is done, and how simple it is, and I hope that in the future some of you will take it up.

THE PRINTERS. LITHOGRAPH



LITHOGRAPH PRESS

THE GRAPHIC ARTS LITHOGRAPHY THE METHODS SIXTH LECTURE THURSDAY APRIL 22 1920

MR. EGGERS: I wanted particularly to say a word in connection with this program, because a proposition—I might almost have said at one time a dream—which we have had in mind at the Art Institute seems to be approaching realization. Mr. Pennell is only one of those who have urged doing things which are practical, doing things which are more and more practical at the Institute than the things which we have been doing, and among these more practical realizations of the art ideal is the development of a class in lithography. Through the generous co-operation of the National Association of Employing Lithographers, the Art Institute is going to be able within a very few days, I trust, to announce a class for the training of workers in lithography.

There will be two phases to that work. There is one which is distinctly an economic phase. The country needs lithographers. It is willing to give

them occupation. It is willing to pay them well. In other words, the technical lithographer is a man who earns a good living and is sure of a job.

The other phase is that in lithography we have a means of conveying to a large public the direct touch of the artist in a work of art as we do not convey it by any other form of reproduction, with the exception, of course, of etching and wood-block printing.

The lithograph is in a certain sense an autograph. It is a comparatively young art, but already illustrious names like Whistler's, Mr. Pennell's own, the name of Bellows, Sterner, men of that type, have been enrolled as great masters of that art, and they have given that art a great impetus.

It is a great pleasure to introduce this afternoon's program in which we shall have a practical demonstration of various practices of lithography.

MR. PENNELL: I think this announcement by Mr. Eggers is most important, for it does show what some of us have been trying to insist on, that what is wanted in this country are practical technical schools, and if you make a start, as you are going to make here by a School of Lithography, you will have done a great deal for the country, for the Institute and for the students, and the last should be first. My belief is this, and I know it is a practical belief, and I have said that I do not believe there is a single budding Rembrandt or Michelangelo, or Whistler, or unseen genius in this audience. I do not believe any one of you is going to turn out to be anything of the sort. Yet some of you may. That will be because you cannot be stopped. But there is no reason why every student in this school should not learn some craft by which, until you

become great artists, you can live. No matter how great you may become, you are not going straight to the top of the tree or the summit of the mountain of fame. You will have to do a lot of climbing, and the easier you make that climbing for yourselves, or the easier it is made for you, the better. And if as in climbing you have a rope—a craft—to hang on to, the better it will be for you.

There is one other thing I want to say, and it is that many of the most distinguished artists in this country have started as lithographers, and I can give you their names. One of the most brilliant was John H. Twachtman. Some of his pictures are upstairs in the galleries. Twachtman was trained as a working lithographer. So were Shirlaw, Dielman, Muhrmann, and many others. Most of them learned their craft in the lithographic shop of Strowbridge & Company in Cincinnati. They made and saved enough money to go to Europe and study their art. You are studying art here; you have scholarships to depend on, but you have no craftsmanship—those men of a past generation made names for themselves by themselves—you have every sort of help, denied them, but you have yet to make a reputation as they did. That is the aim of all artists.

Probably the greatest artist that America has produced, and who stayed over here and did not go to Europe to live was Winslow Homer. I do not know to what extent Winslow Homer worked at lithography, but he knew the art of lithography, and he fell back on it when he wanted to publish some of his drawings.

The most interesting thing that I have heard since I have been here is the announcement of the

starting of this school of lithography by Mr. Eggers. I am extremely glad that it is to be started. And you are greatly indebted to the Art Institute of Chicago which is now going to take up practical work, and it will be your privilege to assist by practical study, and then you will find that you will get practical returns from it. It is not going to interfere with your art work, but it is going to enable you to make a livelihood out of your art, and you have to make a living, most of you, I hope. If you can do it in an artistic fashion, it is one of the greatest advantages that you can have had from your school training.

Now, to come to practical work. I told you the other day that when Senefelder invented lithography he had two things in mind: One was the printing of his plays and music in some simpler and cheaper form than by engraving on copper. The other was calling the attention of artists to the new craft. Mr. Eggers made one mistake in his most important announcement today, though he did try to correct himself, when he said that lithography was a form of reproduction like etching or wood engraving. As a matter of fact, it is nothing of the sort. It is not a reproductive art. It is the art of multiplication, while all the other graphic arts, as I have been telling you for the last five lectures, are reproductive arts. Lithography is the art of multiplying originals and not of reproducing them.

Drawings from the beginning of lithography were made by artists on paper or on stone. Senefelder was always trying to get some substitute for the heavy stone, and his first attempt, and successful attempt, more or less, was in making what he called "stone paper." That was a sort of paper which

was coated with powdered stone, and this gave a grain to the drawing made on it. It was not a success, though used for a while.

And the next thing he tried was metal plates. I am not certain to what extent he succeeded, but, as I showed you last time, most of the early lithographs were copies done in the artist's studio or in the printing-office, and stones were used for two reasons: Because the artist did not have to take them out of doors, and also because when you make a drawing on stone or on a metal plate, you know what you are doing, and the design so made should print.

There is this difference between lithography and the other graphic arts. When you make an etching, as I think I told you last week, but it is worth repeating—you first draw on the zinc or copper plate, but that is not the etching, not the end; you must bite the drawing and print it. In lithography the drawing that you make on the paper, on the plate of zinc, or on stone, you will see—or you should, if it comes off—comes out as a print exactly as you drew it. It is not reproduced, or changed, it is multiplied.

The first thing to do in making a lithograph is to prepare the zinc plate. That is a simple matter. But everything about lithography is simple. It has only been made complicated by people who want to wrap it in mystery, and in unionism, and various things of that sort, which you artists will find are not absolutely necessary to good work.

But again, as in all other arts, you have to know how to draw.

The first thing is to prepare the plate by polishing or graining it, and then to draw on it. You see

the drawing which has been made on it. Then the printer dampens the plate with water in a sponge. I would not have done it that way. It is not necessary. But he is doing it in his way. He wants to clean the plate, to get the surplus chalk of the drawing off the surface of the plate. I know it should be left there, as it gives richness to the prints.

After he has finished washing the drawing, if anything is left of it—he has smeared it already—he will, I believe—everybody has his own way—wash it with gum arabic and water, and gum arabic is supposed to be one of the most vital and important and necessary—it is necessary—adjuncts to lithography. The gum arabic protects the design, keeps it from spreading, and also in a way etches it—what I have told you about etching lines into a plate or etching away the undrawn parts of it—as in etching or photo-engraving—is not done in lithography at all. In this, as you see, there is no etching of lines into the plate, or leaving them in relief. The whole is done on the surface by chemical affinity. And the theory and the practice is this: The chalk with which this drawing is made is composed of grease and coloring matter, and grease attracts grease and repels water. The printer now covers the whole plate with ink, which is only the chalk dissolved by having some oil mixed with it, in order that he can use it on the roller. He let the plate dry so the ink sticks to it all over.

He is doing it in his own way, and that is not my way, but I have no doubt he will succeed quite as well as I would. He rolls the ink all over the plate to strengthen the chalk drawing on it, and he now washes the ink off with water. Next he washes it with

gum arabic and water and a little acid mixed with the gum arabic, and the tone of the ink comes off the undrawn-on parts, leaving the drawing. Now it is ready to prove. It is so simple to prepare a plate that artists have rarely tried it; they have left it to professional lithographers, and it has become their property, as well as the most useful and the most popular form of engraving.

The printer again dampens the plate and then takes his large roller and rolls more ink on to the dampened stone. The ink is adhering only on the drawn-on parts. The rest of the surface is perfectly clean. The damp, undrawn parts refuse the ink.

The old printers made another mystery about this stage: you must never touch the plate or scarcely look at it. In the old works on lithography you were told to cover your face with a mask and not breathe on it, and the most horrible thing was to spit or sneeze on it. Hullmandel in the first English treatise on the subject gives these warnings. But some of us have found that it is a good thing to look at the drawing, and keep looking at it to see how it is getting along, and even get some finger marks on it, which add tone to it, or if not wanted can easily be taken off.

The first lithograph was made on a copper-plate press. That is why I am using it, to show those of you who have copper-plate presses that you can print lithographs on them.

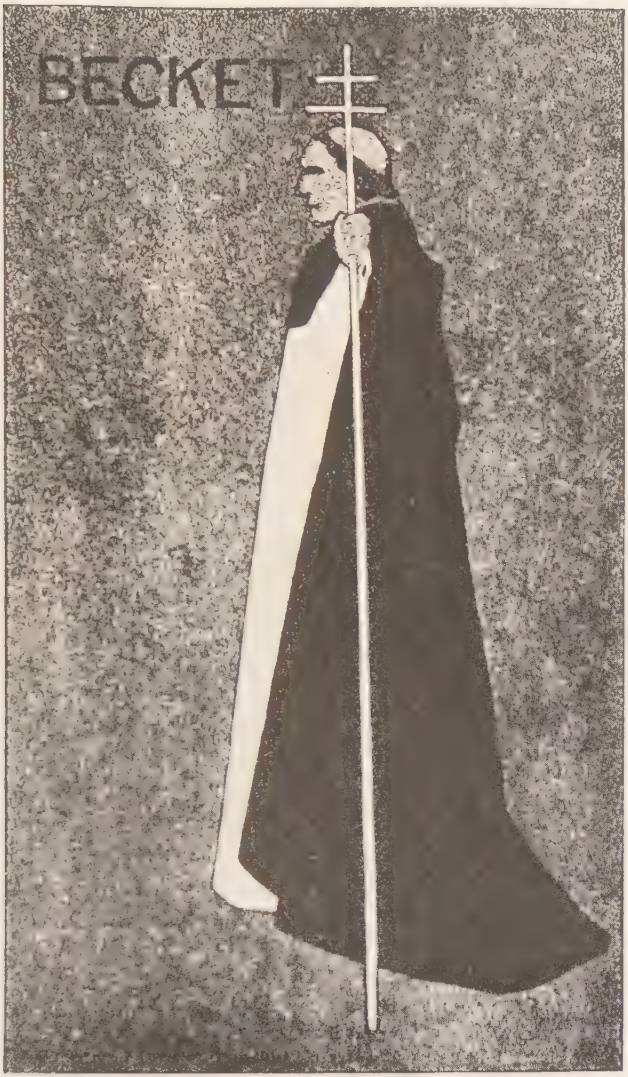
Senefelder used one in his experiments before he designed a press; and so I want to see if it will not work today as it did in the very beginning; the inked plate with damp paper on it is run through exactly as an etching. Of course, I cannot be absolutely sure that it will print, because the most

extraordinary things happen or do not happen whenever you attempt to make them happen in lithography. I want to try Senefelder's first method; many artists today use copper-plate presses to prove the plates which they have made.

Here is the print—it has printed. It has not enough ink on it, yet the lines are all there, only they are not inked enough. But that shows how long it takes to print a drawing after it is made. Again the printer dampens the plate, rolls more ink on it, and more ink sticks to the lines; he lays another sheet of paper on the plate, pulls down the tympan, and runs it through the press; the proof is stronger; it is right. He now washes the plate with acid to prevent its absorbing more ink, and he can make any number of prints.

Later Senefelder invented the lithograph press, which in a way is very much better. In the copper-plate press the pressure was obtained by rolling the flat plate between the two cylinders when the prints came off.

The lithograph press is made entirely differently, because the lithographers found very soon that nothing like so much pressure was needed, and they also discovered it was very much easier to scrape the ink off the plate by passing, as the printer will in a moment, the plate or stone placed on this bed under this heavy yoke. The bed is lifted up, and here in the middle is a bar which carries a scraper at the bottom. There is no necessity for the heavy pressure of the copper-plate press. The zinc is now inked again, paper laid on it, and as it passes under this heavy yoke the ink is scraped off on the paper. It does not require that enormous pressure which was given to it by the copper-plate press. You see



THE BEGGARSTAFF BROTHERS: IRVING AS BECKET. POSTER. LITHOGRAPH

R. A. BELL: SCHOOL POSTER. LITHOGRAPH

TH. STEINLEN: POSTER. LITHOGRAPH

PAGE 272 JOSEPH PENNELL AT WORK ON A LITHOGRAPH

how he lays the inked sheet of zinc on the bed of the press, puts the paper on it, pulls down the handle, and then the bed, as you see, rises up against the scraper, and then he runs the whole bed under the yoke, and the ink is scraped off by the scraper as the plate passes beneath it.

Here is the proof, and you see how much richer it has become. Compare it with the first proof. It is only that more ink adheres to the drawing as more ink is rolled on. And if the printer went on inking it for any length of time without washing it with acid—instead of acting as an etching does, and getting weaker, a lithograph acts in exactly the other way; it gets stronger and stronger—finally it would become black all over, but even then it could be washed out with acid. The printing lines get black because the greasy ink sticks to them.

Now, in order to stop that he washes the plate with a mixture of chrome acid and gum arabic, and that prevents the ink from accumulating on the drawing; it prevents the lines which were drawn from absorbing more ink. The lithographic printers call this etching. It is in no sense etching into relief or etching hollows in the plate at all. It is only stopping the plate from absorbing more ink.

Now he inks it again, after having dampened it, rolls more ink on, and this is the whole secret of lithography; this is the way in which the simplest lithograph is made. And as you see, there are no secrets about it, though there is as Whistler said, "the secret in doing it," and I can tell you that if any of you came up and tried to ink that plate, tried to ink it as he is doing with apparently no trouble at all, and then pull it, you would make about as bad a mess of it as could be made; it is not half as

easy as it looks. The printer does not even have to take the plate off the press—he inks it on the bed. There is another proof, just the same as the other, and it would go on printing now that he has washed it with acid, and give a large number of proofs without getting stronger. I do not know how many. That depends on the design on the plate. I imagine this would print some thousands. But that is not usually done, at any rate on a hand press, but by steam—and from transfers, which I will explain.

But the way in which most artists work today, and the way in which it is necessary to work if you are going to work out of doors, is to draw on paper. All you do is to make the drawing on a sheet of rather thin paper, any sort that you like—this one is on tracing paper—the only absolute necessity is you must use lithographic chalk. This method was the earliest of Senefelder's discoveries, yet the method was abandoned for many years. The reason why lithography has been revived is because artists have learned that they can make their drawings on any sort of paper they like, provided it is reasonably thin and has not too much size in it. The next thing to do after you have made your drawing on the paper is to dampen it on the back; some printers use hot, some cold water, some add turpentine or acid to it, as he is doing now, and wash the stone or plate, then pass it through the press, and a very extraordinary thing will happen, or should happen—sometimes it doesn't happen. That is, as the drawing is passed through the press, the grease which is in this chalk with which the drawing is made, comes out of the drawing on the paper and adheres to the zinc plate, while the carbon or lead, or whatever the

black material is, stays on the paper. The black is added to the grease only that the artist may see the drawing. And if the experiment comes off successfully you will see the most curious thing of all—not reproduced, but multiplied art; that is, you have your drawing and a print of it at the same time. Sometimes you lose both, and I do not know what will happen now.

The artistic development of lithography among artists comes from this method, which has been revived only within the last few years, the method of drawing on paper, and having your drawings put down on metal plates or stone. It makes no difference which you use. The only reason that zinc or aluminium is used is because it is much more portable. You see this stone on which the zinc is backed. It is placed here to raise the surface of the plate up to the proper height in order that the scraper may act on the face of it. Senefelder in the *Grammar of Lithography* refers to the method but does not describe it. I am showing it to you.

Stone is regarded as something sacred and precious and holy because of the wonderful natural grain that is in it. As a matter of fact, the stone which Senefelder used, and which is used today, the best of which comes from quarries in Bavaria, —Solenhoefen—is perfectly smooth and has no grain at all. The grain is artificial, and is put on either by taking very fine sand which is sprinkled on the face of the smooth stone, pouring water on it, and then rubbing another small piece of stone in every direction over it until the rubbing and scratching of the sand between the two stones produces a grain on the stone or on the zinc plate, or it may be done in other ways. There are great roughened

marbles which are rolled violently around over it in sand until the grain is made, or it is done by a sand blast. The reason for using the grain is that if you drew on a perfectly smooth stone, every line, as in photo-engraving, would print perfectly black; you would have no way of making greys. If you want solid blacks only in the design, you do not use any grain on the stone. These drawings may be made with pen or chalk. But if you have a drawing with tones—greys—in it, in order to keep them and break up the solid blacks, there must be a grain on the stone; or else they will all print solid black. So much for that. There is, however, in the artificial grain on the stone a certain quality, and that quality is to certain artists very pleasing indeed, but it has nothing to do with the art of lithography at all, though some people say it gives the lithographic quality. But it is not an artistic quality. Many people prefer it; on the other hand, many artists will have nothing to do with the stone; they hate it. The Solenhoefen stone is best because it has a uniform surface and absorbs water and grease perfectly.

If you are doing a drawing in a lithograph shop it is infinitely better to use the stone, because you are sure that the drawing will print. But when you make a drawing on paper and transfer it, as the printer is going to do, to the stone, you are not absolutely sure what you are going to get. The result is in many ways uncertain.

Of course in working seriously one should have all these things ready, but the great, eminent, and very generous artists sent in their valuable contributions only about ten minutes ago, and it requires some little time to get them ready. There is no

great secret about this. All the printer has done is to wet the back of the drawing with a sponge and water.

He is going to transfer two drawings, and this ought to be rather interesting, because one of them is done on a thick piece of paper and is rather elaborate in tone—they are both elaborate—and the other is on a thinner paper. All he does now is to lay them face downward on the stone. He must be very careful about keeping all these plates and stones damp, because otherwise, if the plate is allowed to dry and the ink is rolled on it, when the drawing is put down on it the grease is very liable to spread and smear the drawing.

He is dampening the face of the zinc, that only the drawn-on parts may take the ink. Lithography, though so simple, is only beginning to be understood, because for the fifty or sixty years in which it was used only for commercial work, scarcely any experiments were made. It is only within the last few years that artists have been trying experiments, and it is only within the last few years that we have learned how many ways there are of making drawings.

All the drawings I have here this afternoon are drawn with chalk. But drawings may be made with a pen on paper and transferred, as these now will be. They can be made with a brush. They can be made with wash, though that is rather unreliable to transfer to stone, and it is better to make wash drawings on stone, zinc, or aluminium.

He is now putting pressure on the press, and he runs the drawing through it. I simply wanted to see, by raising the edge of the paper, whether the drawing had come off of the paper and adhered to

the stone, as it should. It sometimes takes several runs of the press before the grease will come out. The only danger in doing so is that the drawings stick to the zinc plates, and then I can tell you you have a very lively time to get that piece of paper off. The professional printer does not work in this way. He runs the paper repeatedly through the press, wetting it each time till the paper becomes pulp and is washed off, and the drawing adheres to the stone.

You see now I lift them off the press and there are the drawings, and very elaborate ones they are, and nothing apparently has happened to them. But I can see up here that the grease, or a certain amount of it, has been extracted from them. There are the drawings, apparently uninjured—in fact they are not injured at all. You could run these drawings through again, put them through the press again and more grease would come off, because there is still enough in them to transfer to the stone.

Putting them down in this way is what is called transferring. This also was supposed to be wrapped in mystery, but you have seen how the work is done. But there is almost nothing to be seen on the stone.

In order to make these drawings print he will wash the drawing on the plate with an inky rag. There is hardly anything, that you can see. I can see the ghost of the design of both of them. He now washes them with gum arabic and water in a way to protect them. And we are doing just as we did last week in etching; I mean that we are doing things in five minutes that we ought to take at least five hours to do. And sometimes these affairs become rather refractory and do not act the way they ought to under such treatment.

But as he washes them with a rag which is dipped in ink, the drawings are absorbing ink and coming up. That is one of the most extraordinary things. The zinc did absorb the grease which was in that drawing, and the drawing will come up on the plate, as you will see in a minute by rubbing more greasy ink on it. Every bit of the grease on the zinc will print.

One of the things which Senefelder said was that lithography will be an excellent way for writing secret documents, because you can write them in invisible greasy ink, and when the documents are received they can be rubbed up in the way he has rubbed those designs up now, and the person who receives the documents can read what has been written in invisible ink. And such letters in lithographic ink could be written over or under an ordinary letter, transferred as he transferred these designs, and rubbed up as he rubs them up, and the whole would be legible. This drawing is coming out perfectly now. It is the attraction of grease for grease, and the repulsion of water by grease.

The drawing is all there but faint, and the other one I expect will come up. If they had behaved rightly, which they did not, enough grease would have come off to show the design on the zinc. But it can be coaxed up in the way in which he is doing it now.

I believe the draughtsman was trying to get the better of me by using Conté or some other crayon; as a matter of fact he did not get the better of me, but he got the better of the zinc, for nothing will act on the plate but lithographic chalk. It is not the fault of lithography, it is the fault of the person who made the drawing, I am positive about

that. And that is the way the lithographer always talks. He always blames the artist. You will find, when the school starts, that you will get all the blame. It is never the fault of the lithographer. But I do think there is something wrong with the chalk which has been used in this drawing. You can see that one drawing has come out, as he rubbed it up. The other one probably would come, but it would come very slowly indeed. And we have not time to humor and coax it. So we will try others.

These drawings, after they have been transferred and rubbed up in this way, ought to be allowed to dry, because at this time the surface of the zinc is very sensitive, and you can very easily, when putting the ink on, either smear the drawing all up and get it perfectly black, or rub it all off and destroy the design. But the zinc and stone are of a very forgiving nature as well as very absorbent, otherwise they might object and give up entirely. But they do act in an extraordinarily sensitive fashion, as you will see.

It proves, as I said a moment ago, the advantage of drawing on stone or on zinc, because then everything you draw prints as you drew it, the only change being that the drawing is reversed, as all engravings are reversed.

These others, although you have not seen them yet—have come perfectly; none of the black coloring matter has been taken out of the designs at all. Yet equally black designs are on the zinc plate—and now they have printed perfectly and here beside them are the originals.

There is no end, however, to the means or the methods of making lithographs. Those colored

GEORGE W. EGGERS: DRAWING AND LITHOGRAPH PRINT FROM IT

HANS UNGER: HEAD. LITHOGRAPH

ALLEN PHILBRICK: DRAWING ON PAPER AND PRINT FROM IT TRANSFERRED TO STONE AND PRINTED AT THESE LECTURES

AUBREY BEARDSLEY: POSTER. LITHO-
GRAPH

posters that you have seen, the war posters that were issued for Liberty Loans, were nearly every one of them—I think all of them—done in lithography, but they were nearly all of them done by men and women who did not know anything about lithography. And the drawings were mostly made not in lithographic chalk, but as water colors or oil paintings, and when they had been so made, the originals had to be photographed on to sheets of zinc or stone or redrawn on the zinc or stone by a trained craftsman in lithography, whereas if they had been made in black and white just as the Japanese wood cutters made their drawings, just as the students have made these drawings, they could then have been transferred just as these can be, to the stone or metal plates, and printed. About five of the five hundred artists who made war posters understood lithography, and the other four hundred and ninety-five did not. The consequence was that the four hundred and ninety-five posters had to be redrawn, and this not only delayed the United States Liberty Loans, but it cost the United States government an enormous sum of money for unnecessary time and labor. And every artist whose work was copied and redrawn also was disappointed. He knew nothing about the art, and most of the so-called lithographic artists knew nothing about design, and the result was that in every case the drawings were changed and lost in character, excepting those of the half a dozen men who did know. There was the usual row between the artists and the lithographers, and in this case the lithographers were right. Artists made drawings for those Liberty Loan posters in colors which would not reproduce, and they made them in such

a fashion that they had to be redrawn. And it was all the fault of the artists who had not been trained technically—and many of them were too lazy or too stupid to learn or even care.

Now what you are going to learn in this school is how to work, because lithography is a craft, and you have got to learn that craft, and unless you have mastered it—and there are many things which are difficult and many which are easy—you are not fit really, and you will never have the chance of being allowed to work for a lithographer; because even a lithographer is not a benevolent institution, though a good many people seem to think that art is a benevolent institution in which artists who have not learned their trade can play tricks upon less intelligent manufacturers, but even they know enough not to allow it to be done, at any rate, after one encounter with an ignorant artist.

If you are trying to make a design in color it should be made in black and white, treated exactly as a Japanese wood block is, as I have treated these plates. When the black and white drawing has been put on the stone or the zinc plate, as many transfers of it in greasy ink should then be taken as colors are wanted, one color for each stone or plate, and those colors should be applied exactly as the Japanese do one after the other, not one on top of the other, as the lithographers do, but side by side as a mosaic.

If you remember the two posters that I showed you by Beardsley and by Falls, they were done in this way, and they came out so wonderfully because those artists knew how to draw, and draw for the lithographer. And you must know how to draw—you must know how to make lithographs before

you can make them. You have to have this technical knowledge, and if you have not that knowledge, you cannot do good work. And that is the great good news that Mr. Eggers brought to you this afternoon, that you are going to have a lithographic school started here in which you can practice, and if you can do good work you can become good lithographers, and then, having studied art, studied drawing and painting, you have a chance to work in a practical way, a chance of making a decent living. And if the Lord Almighty has made you an artist, you have something to fall back on and depend upon if the public has not the brains to appreciate your painting. Meanwhile let us try to print some more drawings. The drawings must be perfectly dampened. Again one is on thin and one on thick paper. Now when the printer runs them through the press we shall see what will happen.

These are good; you see the grease has come out and adhered to the stone. There is the original unchanged.

That is one of the few things which have been discovered in lithography, as we thought, until finally, on reading Senefelder's book *The Grammar of Lithography*, of which I showed you the title-page on a slide the other day, we found that he knew it, because he said, "There is still another way of transferring by which the drawing can be saved," but then he did not tell us the way in which it could be done. But I have shown you the way in which it is done. And this art of extracting the grease from the drawing and keeping the drawing is almost the only thing the modern artists have discovered—and yet all the while Senefelder knew it.

The printer is rubbing the zinc with gum and water to protect them; now he washes the gum off, and rubs them with ink to get on faster, but it is not the best or the safest way; he should roll them up with his roller, but in this land of hustle, we do things in a hurry and repent at leisure.

There are an infinite number of other ways in which lithographs can be made. For example, as you may remember, I showed you one the other day in which the whole surface of the stone was blackened with a tone of ink and then the design scratched out with a scraper or with a point just as mezzotints are made. Aquatint grounds can be put on the surface. The stone may be etched into relief, or it may be engraved, or the drawing may be etched into it.

There is no way at all by which a lithograph cannot be made, or a beautiful result be obtained, by a trained artist. Just as in all the other graphic arts, there is that one little necessity—the artist must know how to draw before he can make a lithograph, or a work of art of any sort. And besides he must be trained in the craft.

Those drawings are coming up perfectly now. They will at first be somewhat weak, as the others were, but they are all right. I do not know what was the matter with the first one, but I think it was the crayon the artist used instead of lithographic chalk. The printer says it was, so that is the end of it.

In making wash drawings it is better to work directly on stone, because the transferring of wash is very difficult, though it is being done now. And those wash drawings that I showed you by Whistler and other artists were done on stone, because, as

I say, the use of wash on paper is very uncertain, and very unreliable. But few artists today are using the stone, preferring paper, at any rate to commence their work on. But after you have got the drawing on the grained stone or zinc you can work to any extent on it with chalk or with ink or with wash. Before it has been etched, when it is in the state that this is now, before it is washed with gum and water, you can draw on it or take anything from it. After it has been gummed up and etched, it is rather difficult to make changes, though you can remove the etched surface and the gum and water by using other acid on it, counter-etching, as the lithographer calls it, and then you can make any changes you want to. You are not prevented from making changes because you have drawn on paper and then transferred the design to stone. In fact, the only real difficulty about making lithographs upon paper is that, unless you have some specially prepared paper with a surface through which you can scratch, you cannot make any changes at all on the paper, and you must wait until you get your drawing on the stone before you do so.

There, he has taken the turpentine and washed the drawing all out. It is apparently gone. That is one of the most curious things about lithography. But the grease is there in the plate. And now he inks it with the inky roller, and now in a moment he washes it out; it has disappeared; and now he rolls it up, and the drawing has come back again. The first time you make a lithograph and see that done to your drawing you will have rather a fright. You will think it is done for. But it is not. The grease is in the stone or plate, and it will come back. It is

only the ink on the surface which the printer has washed off.

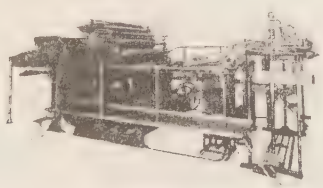
The whole surface is now coated with ink in order to get it to adhere to the drawing. One wishes all the time that one could make use of that beautiful tone which is now on the surface of the plate, but there is no way that has been discovered yet of really fixing it and getting tone, unless you draw a tone on it with stumps or rags covered with powdered or soft chalk—*touche*, the printers call it.

There are other ways, and I wish I had time, but it would take a week to show you half the ways in which lithographs are made. They will be taught. They are what you are going to learn in this school that is to be started at once. You will learn that there are endless methods, and if you care for lithography you will find them fascinating.

Now the ink is washed off, owing to the plate having been dampened, only remaining on the lines, and those two designs are coming up wonderfully, perfectly, as well as they could be made to, right away. You see how long it takes. There is no intermediary, no one who copies your work, no photography, no engraving or etching. These are the drawings that the artists made, multiplied; not reproduced, but multiplied. They have printed perfectly. There is nothing so extraordinary in the graphic arts as the sensitive way in which these drawings disappear, and then reappear by having a little ink put on them. It is nothing more than the fact that the grease attracts grease and repels water. It is magic, yet it is so simple, that artists never even tried it for fifty years—so simple it fell into the hands of the "manufacturer," as the lithographer calls himself.

This first print will probably be rather grey. It is printed stunningly, the first time. That was very well done indeed. In places it is too black. We have too much ink on the plate, but that can be washed with more of the acid, which will reduce that strong patch in the hair. It is perfectly easy to get the grey back; it is perfectly easy to do anything except the drawing. The other parts of it are right because the artist has learned to draw.

I could tell you any number of other methods, but I think the time is up. I must say this, that if you think you have learned anything from these lectures which you have listened to during the last three weeks, I am only too glad. I have shown you how important in modern life the graphic arts are. But as I have said, it is not by honoring me in coming here to listen patiently that you will learn anything, but it is by endless work. And now, in one branch of the graphic arts, lithography, you are going to have a chance to work practically as you have in etching in this school. You are going to have an opportunity that nobody in this country ever had before, and you ought to thank the Art Institute for giving you that opportunity. And if I have had any part in helping to get practical art education introduced into the art schools of the Art Institute of Chicago, I am only too happy, and I have not given the Scammon Lectures in vain.



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